

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

62,09
LIBRARY
Twenty-fourth
Annual Catalogue

1917

AGGELER & MUSSEY SEED CO.



$\frac{3}{4}$
ACTUAL SIZE
SEE PAGE 66

Rivers Bros.
Perfect Early
Tomato

SUNSET MAIN 4545
HOME 60875
LOS ANGELES, CAL.

FROM AN ACTUAL PHOTOGRAPH

HOW TO ORDER BY MAIL

YOUR NAME AND ADDRESS.—Be very sure that your name and address are written very plainly on each order. We frequently have orders where either name is not given or address omitted. Also give plainly the R. F. D. number and box, or the street address. We acknowledge all orders by a post-card if not filled immediately. If such acknowledgment is not received, or if the order does not follow at once, write us about it.

CASH WITH ORDER.—The proper way is to send remittance in full to cover order and postage. We send orders C. O. D. only if 25% of the amount of order is enclosed. Plants we never send out C. O. D.

REMITTANCES should be made by Post-Office Money Order, Express Money Order, or by Check. For amounts up to one dollar, clean, unused postage stamps will be accepted. Coin should not be sent by mail. Checks on local banks may be sent, which will be a great convenience to many customers. We do not accept responsibility for orders which never reach us. We will be responsible for the safe arrival of the merchandise.

SHIPPING—We will use our best judgment as to the best way of sending orders when specific directions are not given. On large "postpaid" orders it is better to have them go by express, if your town is on a railroad—it is safer. We prepay express charges on merchandise quoted "postpaid." If special directions in shipping are needed, send them explicitly, and where express or freight office is different from post-office, so state in space on our order sheet.

SEEDS BY MAIL.—We send by mail or by express prepaid, all orders for flower seeds, and for vegetable seeds (except beans, corn and peas). We do not pay postage or express charges on onion sets, field seeds, clovers, grasses, bird seeds, beans, corn, peas, tools or plants in large quantities; but we do pay them on other vegetable and flower seeds. Correspondents in foreign countries should add a sufficient amount for postage at the rate of 12 cents per pound.

THE PARCEL POST APPLIES TO SEED. Postal rates are as follows. Owing to the convenience of having mail brought to your door by the rural delivery system, it is well to take advantage of the low rates.

20 pounds anywhere within the city limits of Los Angeles for 15c.

20 pounds one hundred and fifty miles 24c, and 1c for each additional pound up to 50 pounds.

Nothing heavier than 20 pounds may be mailed farther than 150 miles in one package.

The Eighth Zone includes Mexico and Canada.

ZONE RATES.—When it is required that postage be added to the purchase price of any commodity, note the distance you are from Los Angeles, see in which Zone you live. It is then easy to estimate the exact amount of postage required, or ask your postmaster.

DOMESTIC PARCEL POST RATES						Each additional	
On Seeds, Plants, Bulbs, Roots, Books, Tools, etc.,						First pound	pound or
within the U. S. and Possessions						or fraction	fraction
First Zone, Los Angeles and within 50 miles of Los Angeles	.....					5c	1c
Second Zone within 50 to 150 " " "	.....					5c	1c
Third Zone " 150 to 300 " " "	.....					6c	2c
Fourth Zone " 300 to 600 " " "	.....					7c	4c
Fifth Zone " 600 to 1000 " " "	.....					8c	6c
Sixth Zone " 1000 to 1400 " " "	.....					9c	8c
Seventh Zone " 1400 to 1800 " " "	.....					11c	10c
Eighth Zone " all over 1800 " " "	.....					12c	12c

FOR PARCELS WEIGHING 8 OUNCES OR LESS, containing seeds, bulbs or books only, the rate of postage to all zones is 1 cent for two ounces or fraction. (Over 8 ounces the parcel post rates apply.)

FOR PARCELS CONTAINING FOURTH CLASS MATTER—other than the above—up to four ounces is permitted to all zones at 1 cent per ounce. (Over 4 ounces the above zone rates apply.)

NON-WARRANTY: Note.—There are so many contingencies to be encountered in growing plants from seed and in setting out plants that are dependent on the weather and other conditions over which we have no control, that success in planting is not altogether dependent on the seed or plant. We will send out only seed which we believe will grow and produce the kind of plant and variety represented, but:

Aggeler & Musser Seed Co. give no warranty, expressed or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs, plants or trees they send out, and they will not be responsible in any way for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.

H. L. MUSSER, Pres.

E. A. AGGELER, Vice-Pres. and Manager

W. B. EARLY, Sec'y and Treas.

The Twenty-Fourth Annual Catalog of the **AGGELER & MUSSER SEED COMPANY**

ESTABLISHED 1893—INCORPORATED 1896



THE picture at the top indicates our arrival at the picnic grounds in the four-thousand-acre Griffith Park, within the city limits of Los Angeles.

Below—A hundred employees and families ready for the feast.

Lower Left - Hand Corner—Headquarters of the

AGGELER & MUSSER SEED CO., Inc., Sixth and Alameda Streets
Branch Store: 115 North Main Street :: Los Angeles, California

Phones: Sunset, Main 4545; Home 60875

Oregon Evergreen Sweet Corn

(See page 32)

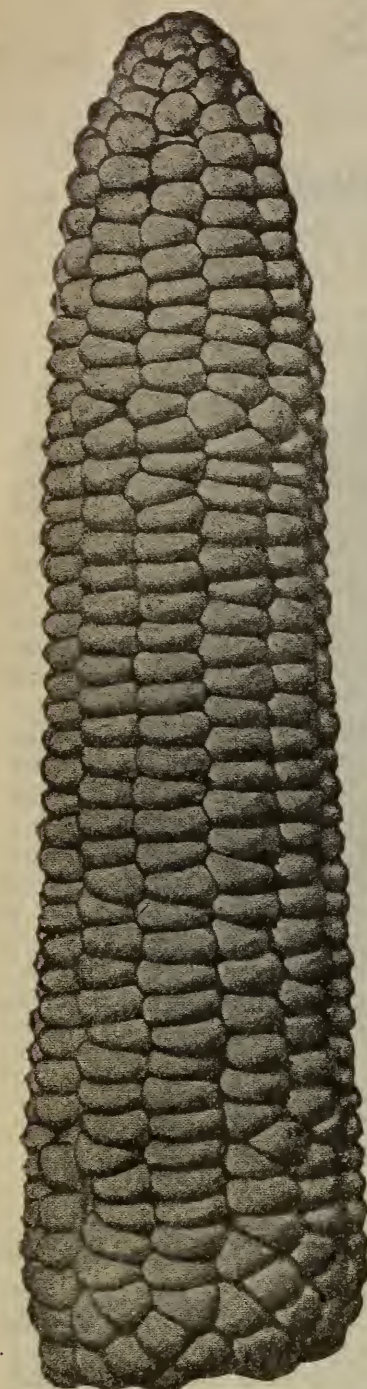
When we introduced this corn in 1905, all we knew of it was that the grower had a monopoly of the sweet corn trade, even setting aside the long-time favorite, Stowell's Evergreen.

At an exorbitant price we procured enough seed for a start, and since the introduction of Oregon Evergreen, no other variety comes near to approaching it in popularity. No other variety can get buyers so long as this may be had. No deception can be practiced, because of its long streaming leaves at the tip of each ear, by which the customer can readily distinguish it from the other varieties.

Approximately fifty tons of this seed is planted each year in California alone. It is one of **Our Big Money Makers**. (Pkt. 5c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.25) f.o.b. here. Write for quantity prices.

Extra Early Adams

Is a money-maker because of its hardness. It is offered on the market three weeks ahead of other varieties. Although good for table use, it is not a sweet corn, and not recommended for the family garden, but it is a big money maker for the market gardener. (Pkt. 5c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.25) f.o.b. here.



A. & M. Oregon Evergreen

Large Adams Just as the Extra Early Adams is a money-maker for early planting, so is the Large Adams a money-maker for late planting, because it will mature a good quality of table corn long after other varieties will fail. Plant it from July 1st until Aug. 15th. (Pkt. 5c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.25) f.o.b. here.

Read carefully pages 1 to 16. There is much information on these pages that will aid you not only in the selecting of your seed but in the culture of your garden. On these pages your attention will be called to the Big Money Makers—crops that are grown by the thousands of acres with almost unlimited market, and on these pages also will be found hints about the home flower garden and vegetable garden.

We have endeavored to make this book so valuable to you that you will not destroy it.

Although frost may entirely destroy corn that is four or six inches above ground, if the heart has not been frozen it will rapidly grow again. Therefore do not destroy your field of early corn, even if it has been frosted to the surface of the ground.

Los Angeles Market Lettuce

See Cultural Instructions, page 12.

The most pronounced of all our introductions.

It was the request of one of the large shippers that we "procure a lettuce that will ship." He wanted a large solid head, larger than the Tennis Ball, and more solid than the California Cream Butter, which were then the best sorts. Working upon this idea, we introduced in 1902 the Los Angeles Market lettuce, since called the Wonderful and also the New York.



Los Angeles Market

The heads weighing 2½ pounds and solid as cabbage at once became "the rage." It soon superceded every other variety for winter growing. (It is not adaptable to our summer climate.) In 1903 we shipped the first crate of this lettuce to the far east to arrive in good condition. It not only arrived in good condition, but remained so until it was entirely consumed, two weeks later. And this was shipped by local freight without icing or wrapping. This success we advertised, and today this Los Angeles Market Lettuce is a household word in every market in the United States, and shipments amount to more than one thousand acres, netting the grower \$150.00 per car. It is one of **Our Big Money Makers**. (Pkt. 5c) (oz. 20c) (¼ lb. 70c) (½ lb. \$1.10) (lb. \$2.00) postpaid.

Chinese Cabbage



Hundreds of carloads of this Chinese Cabbage are being shipped to Eastern markets from Florida and Michigan, which shows that it has an all year round market in the East, while here, the home of the Chinese Cabbage, we have neglected it, where we have always grown a strain that far surpasses that hitherto grown in the East. There they have marketed a loose-leaved variety and sold it as **celery cabbage**. They are now awake to the short leaved, solid headed strain we have, and it is called Chinese Cabbage. One grower from Florida writes that his field yielded **thirty tons** per acre. Think of it! Thirty tons against ten tons of Winnigstadt, and sold at a higher price. See page 27.

A & M Improved Hybrid Casaba

Prince Of All

For Cultural Instructions see pages devoted to Casabas.

This Prince of All Casabas was first offered by us in 1902. It was not at first appreciated, because neither the grower, the dealer nor the consumer knew how to handle it. We printed a special circular of instructions and caused to be published newspaper articles educating the public how to handle it. Gradually its popularity grew until it today ranks equally with canteloupes and watermelons as a staple commodity.

It is light green in color, weighs 10 to 20 pounds; flesh two inches or more in thickness; no stringiness like the muskmelon. The flavor is deliciously sweet when properly ripe, but under-ripe the flavor is not pleasant.

The Hybrid, while it will keep in good condition for three or four weeks, is not practical to ship because of its soft rind and flesh. Unlike the muskmelon, it may be cut and remain good for several days after if kept in a refrigerator.

The local demand for this melon is so great that there is little likelihood of an over-production. It is one of Our Big Money Makers. (Pkt. 5c) (oz. 25c) (¼ lb. 70c) (½ lb. \$1.35) (lb. \$2.50) postpaid.



Improved Hybrid

Golden Beauty Casaba



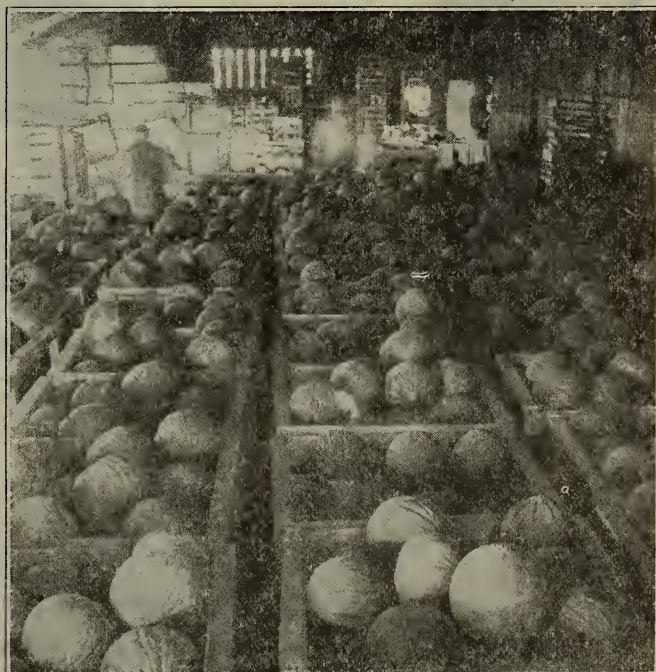
Golden Beauty

For Cultural Instructions see pages devoted to Casabas.

A sport from the casaba long known as the Winter Pineapple, and perfected by years of selection. The Golden Beauty grows from six to eight inches in diameter, is nearly round as a ball, a perfect golden yellow rind almost as hard as a cocoanut. This solidity and its good keeping qualities, together with its golden color, makes it ideal for shipping and marketing.

When we introduced this casaba, we urged the large shippers to handle it, but it remained for a few enthusiastic growers to pioneer the shipping, which was done with some loss at first, until the work was better understood, and the consumer better acquainted with it.

Last season more than five hundred cars of Golden Beauty melons were shipped out of California, and the trade increases each year. It is one of Our Big Money Makers. (Pkt. 5c) (oz. 25c) (¼ lb. 70c) (½ lb. \$1.35) (lb. \$2.50) postpaid.



Golden Beauty Casabas Ready for Shipment

Melons come and go just as fashions do. Any melon, whether it be casaba, muskmelon, or watermelon, that will predominate in popularity even for one season must be a pretty good melon. But here we have the Improved Hybrid, the Prince of All Casabas, which has held the lead unchallenged since its introduction in 1902, and the Golden Beauty has entirely eliminated as a shipper its predecessor, the Winter Pineapple.

See the Big Money Makers on the Back Cover Page

Anaheim Chili Pepper

This excellent pepper is a product of Orange County; it there grew to an average length of seven inches, with a paper-like shell that was readily dried on strings hung in the sun. It was no competitor in the trade with the thick-meated Mexican Chili. We introduced this Chili to the seed trade in 1904. Since that time we have by selection perfected a thick-meated pepper nine to eleven inches long. It is now impractical to dry it in the sun. Instead, dry-kilns have been erected throughout the growing section, where many hundred acres are planted each year, netting the grower, at a normal price of twelve cents per pound, about \$200.00 per acre, for the dried chili, and much more for the green pepper sold largely at the markets. But selling the dried chili is now the smallest end of the business. This thick-meated strain which we call Our Anaheim Chili has made it possible to can it as the Pimiento is done in Spain. By a process of baking the skin is removed and the thick, tender pepper without the tough skin is processed and canned. Also many by-products are made. There is now in operation in this city three large plants canning exclusively Anaheim Chili and Pimiento, and this industry comprises a large portion of the output of other canneries. It is one of Our Big Money Makers. (Pkt. 5c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.35) (lb. \$2.50) postpaid.



How They Grow

The White Rose Potato

See Cultural Instructions, Page Devoted to Potatoes.

In the year 1900 we offered for the first time the White Rose Potato. It was at once recognized as something new and of exceptional merit. The gardeners took to it rapidly and named it the Short Top Burbank. Although we have since that time introduced many varieties of potatoes, none have surpassed the WHITE ROSE. Its merits are its earliness, its adaptability to all conditions of soil, a good early and late cropper, may be planted some-where any month in -the year according to local climatic conditions (October and November are most unfavorable). The White Rose, as its name implies, is a large white potato with smooth eyes and is excellent for the table. The vines are scarcely more than ten inches high. The potatoes mature in twelve weeks, bearing from four to six medium to large sized potatoes on a hill.

Throughout Southern California this potato is being planted more largely than all other varieties combined. Because of its earliness, thousands of carloads are being shipped to other parts of the country, far in advance of any competition. \$350.00 to \$400.00 per carload is paid the grower.

When in the market for potato seed, see us about the White Rose. It is one of Our Big Money Makers.

We are not given to making claims that are absurd and cannot be substantiated with records, but we do believe our records will easily place us far in the lead as dealers in potatoes for seed exclusively. Our imports from Oregon and Idaho the past season were 22 cars of American Wonder, 28 cars of Red Rose, and 2 cars of Triumph, from Northern California, 3 cars of Burbanks, and out of Southern California we handled 12,000 sacks (about 40 carloads).

A total of 95 carloads of potatoes for seed only.

Certified Seed

We have contracted for this season 18 carloads of seed grown under the supervision of Prof. Shear, and certified by him to be free from scab and rhizoctonia, and grown under such conditions that they should be free from disease of any kind.

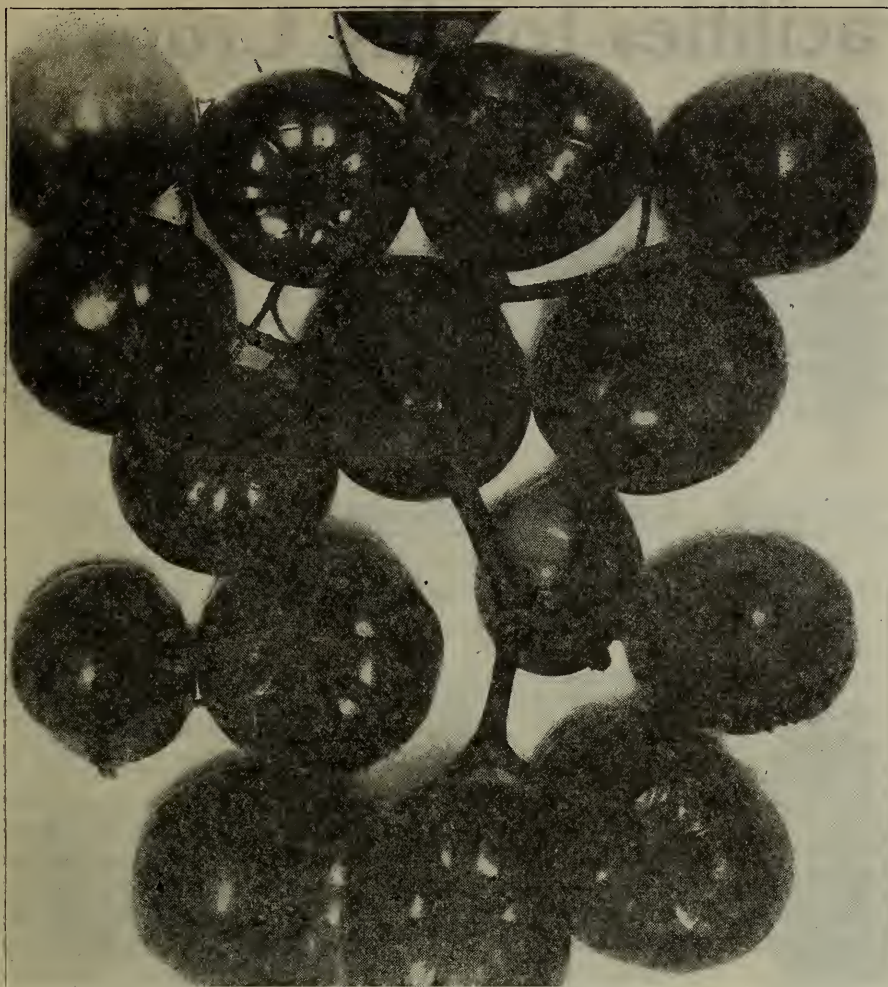
Last year we sold several carloads of certified seed that proved more than satisfactory to the purchasers, for some have reported a yield of 200 sacks per acre, and sold at a fancy price to neighbors for seed purposes.

Dip in formaldehyde (one pint to thirty gallons of water) all scabby potatoes intended for seed.

Anaheim Chili

In this catalog we are offering only the varieties that are in popular demand, and such new varieties as we have tried and find to be worthy of introduction. When we offer some new thing, we wish you to try it, because it promises to be something better than we have had heretofore.

We avoid offering the same thing under a multiplicity of names, which is often the cause of much disappointment to the grower, and, unjustly discredits the seedsman. We say unjustly because for instance, a tomato may be known in one section by a certain name, in another section by another name, and so on. A seedsman that would announce the several varieties as synonymous would bring upon himself the just criticism and condemnation of the trade. Therefore in justice to his widely scattered customers and to himself he has no choice but to list the several names by which it is popularly known, although they are precisely the same variety.



Sixteen on one stem

A & M First Early Tomato

Introduced by us in 1909, this tomato at once surpassed all others as an early shipping or all-round tomato. In quality it is not as aciduous as many other varieties. It is smooth and solid, and not surpassed for earliness. It has a record of having produced twenty-six tons per acre. Never did we introduce anything that brought us so many enthusiastic testimonials of praise. Thousands of acres are planted each year to this variety for early market. It is one of **Our Big Money Makers.** (Pkt. 5c) (oz. 50c) (¼ lb. \$1.50) (½ lb. \$2.75) (lb. \$5.00) postpaid.

See New
Tomato

Rivers Bros.
Perfect Early
Page 60

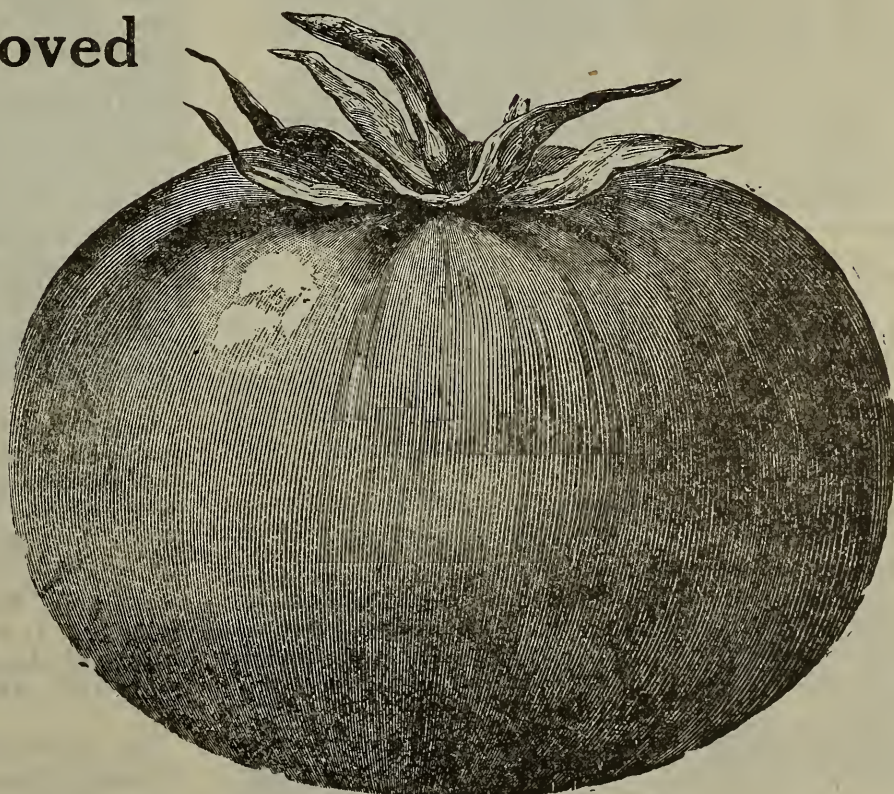
The A & M Improved Stone Tomato

Is without exception the most popular tomato in the United States, and planted more largely than any other variety. **Because** it is smooth, solid, and of good flavor. Therefore the canner wants it. **Because** it is solid, smooth and a good keeper, therefore the shipper wants it. **Because** more are handled by the canners and the shippers than all the other trade combined. Particularly is this true in Southern California. Therefore the Stone is grown more largely than any other variety. (Pkt. 5c) (oz. 25c) (¼ lb. 80c) (½ lb. \$1.35) (lb. \$2.50) postpaid. It is one of **Our Big Money Makers.**

W. S. Bosworth, an expert and professional tomato grower, says: "Your strain of Stone Tomato is so far ahead of any others that there is no comparison. It is in a class by itself. I want no other. I want you to set aside my seed now for next planting."

Tomato is King of Produce in California

Many thousands of acres are grown for the early spring and late fall trade that reaches every part of the United States. Many more thousands of acres are grown throughout the summer for the homes, for the city's millions, and for the canners' trade that feeds the world all the year round. Plant the right variety for each purpose. See us about it.



Stone

We have always been leaders in putting out the best tomatoes. **THE RIVERS BROS. PERFECT EARLY** leads them all. See description on page devoted to tomatoes.

Marketing Facilities for Big Crops

California growers have an advantage over many other sections where the grower must consign his shipments and be at the mercy of commission men and await their convenience for returns, never knowing what they will be until he gets them. Here the grower gets his money at the ear. Our shippers are buyers—not commission men. They do business on their own capital (not yours). You get a fair deal and get it at once. You are little concerned about the ultimate disposition.

As the appreciation of California vegetables grows in various parts of the country, so will the demand. There is much territory to which our vegetables do not penetrate. Virgin fields are still awaiting the introduction of the humble products of the soil. For the men who are interested in intensive farming there is still much room for the growing of such products. There have been years when our products would not begin to fill the call.

A little history of the expansion of our marketing in vegetables might aid you in your decision what to plant. Shipping vegetables to the far East in car lots began about twenty-five years ago with cabbage, celery and a little cauliflower. Wingstadt Cabbage was the only variety grown for that purpose. Now Danish Ballhead and Scott's Cross are sharing in popularity. In celery it was first the California Giant White Plume, but now the Dwarf Golden Self Blanching is grown exclusively, both for local market and for shipping. In regard to cauliflower, it was the introduction of our California Pearl that made extensive shipments possible. It put the article from the Southern States out of the market each year wherever it appeared.

Potatoes The Burbank, a late variety, was shipped only at odd seasons, to places where crops had failed, but the introduction of our **White Rose**, a very early maturing variety, put the shipping of early potatoes upon a staple commercial basis—a business to be depended on from year to year.

Tomatoes Were next to come into prominence by carload shipments—the **Stone** variety for fall and winter, and the **A. & M. First Early** variety for spring shipping.

Rivers Bros. Tomato. See page devoted to tomatoes.

Peas In carload lots by express was made possible by the climate of Imperial Valley, maturing them at a time when the Eastern market can get them from no other source.

Casabas Advanced from a few carloads five years ago to many hundreds, and increasing numbers each season. Our introduction of the **Golden Beauty** made it possible to build up this large trade.

JUST KEEP YOUR EYE ON THE
GOLDEN HONEY CASABA, INTRO-
DUCED BY US LAST YEAR.

Lettuce The Los Angeles Market (also called New York Special) was introduced by us in 1902, and we shipped the first crate to the far East in 1903. It was this beginning that resulted in the enormous shipments of lettuce from this Coast to the Atlantic. The car-lot shipments of lettuce are now far in the lead of any other vegetables.

Cucumbers Are the latest to be added to car-lot shipments of vegetables to the far East. This originated out of the excess of cucumbers grown under cover by the Japanese in the vicinity of Long Beach. The shipments amounted to three hundred and fifty carloads. The **Klondike** is the variety planted.

The Auto Truck, with the Good Roads, has added much to the general betterment of marketing produce of every kind, and makes it possible for the grower remote from the shipping point to compete with the grower nearby. Distance from the market is now given little consideration. The main thing is to grow the right variety at the right time for the purpose intended.

When in doubt, read this catalog, and if still undecided then, write us about it.

Argenteuil Asparagus Is shipped in car lots from Imperial Valley and from about Stockton.

Rhubarb Too is shipped in car lots from Stockton.

Melons The car lot shipments of Watermelons and Canteloupes are of such proportions that the cars are counted by the thousands.

Mixed Cars Carloads of assorted vegetables to the far East is a comparatively new innovation, and made possible only by the excellent marketing organization of our shippers, whose agents see to it that the right vegetables are planted at the right time, at the right location and by the right man.

They then see that they are delivered at some central packing shed and properly packed for shipment. The vegetables used for this purpose are beets, carrots, cabbage, lettuce, onions, parsnip, peas, peppers, sweet potatoes, radishes, squash, spinach and turnips.

Early Vegetables These shipments, always by express, are no small part of the whole. The principal items are made up of the early vegetables, grown under protection or in favored localities. Beans, peas, egg plants, tomatoes, asparagus, rhubarb, artichoke, cucumber, Brussels Sprouts, okra, peppers and squash.

PRODUCE SHIPMENTS

The following item copied from the Los Angeles Times is evidence of big business from a small district:

Garden Grove, Aug. 13.—According to figures gathered from the records of the Pacific Electric and elsewhere, nearly 450 carloads of produce has been shipped from here in the last year. The shipments include: Sugar beets, 182 carloads; beans, 24; cabbage, 17; green cucumbers, 33; dry chili, 61; green chili, 65; potatoes, 18; pickles, 10; plums, 2; tomatoes, 7; walnuts, 12. This place is the poultry center of the county. Shipments for the year include 4714 cases of eggs and 21,795 pounds of poultry.

We are advised by one shipper that the fall of 1916 has already (Nov. 15th) exceeded all previous years for number of cars of mixed vegetables shipped to the far east, with cabbage leading at \$30.00 per ton.



Surrounded with Green Fields

The Garden Six Months from Desert

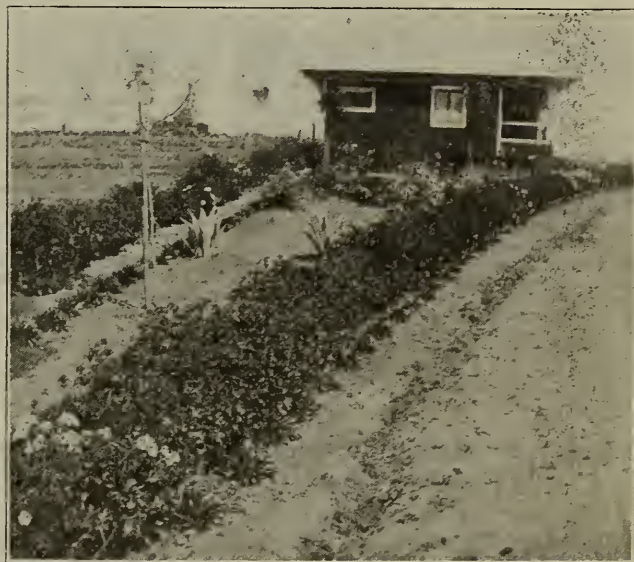
The Shady Home in Three Years

There are two kinds of soil in California that baffle the new gardener, and often puzzles the man of experience. One kind is the raw un-reclaimed soil that packs so hard that vegetation cannot take root. The other is soil as pliable as sand, and ought to grow anything but just will not. Both require the same solution. They need life (humus) and there is nothing better to put life into soil than stable manure, or a green manuring crop plowed under at the right time.

For your garden gather weeds and dig them under. If there is no stable manure available, any decaying vegetation plowed under will add humus. For the field, grow rye, vetch, melilotus, or barley during the winter months, and in the spring plant sorghum, Sudan and cow peas. All these crops will furnish feed for the stock as well.

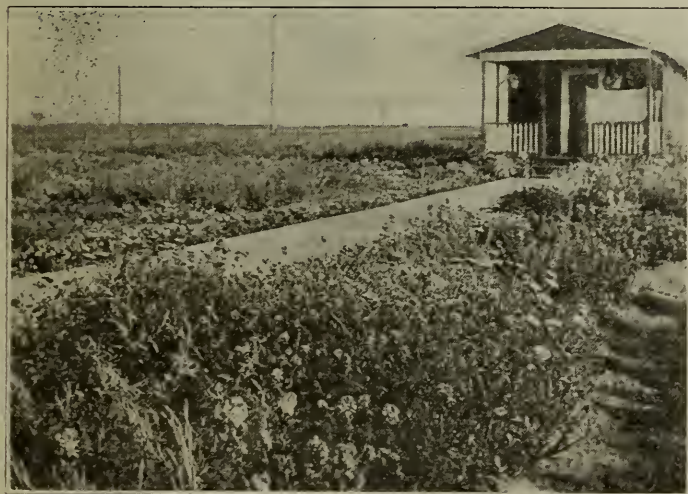
In this favorable climate, anyone may have a beautiful home with surprisingly little effort, if that effort is directed intelligently. By that we mean that you should study the advantages of your particular home, taking into consideration the nature of the soil you have, the amount and the convenience of water available, shade, sunshine, and extremes of temperature. Then from month to month plant your annuals and perennials, selected according to the instructions in this book.

Every housewife and every daughter wants a home with beautiful surroundings, but no person on earth longs for it so much as those who cannot or think they cannot have it. Now there are thousands of bare homes scattered throughout the Southwest, which once the geographies described as the 'Great American Desert.' These homes are surrounded with green fields and orchards, but few flowers. Why? The average rancher is so engrossed with field crops, the big things of the ranch, the money-making end of it, that his education along the line of flowers has been neglected. Here is where we propose to step in and help the housewife and the young folks to have a beautiful home amid flowers the year round.



A Cozy Home in Six Months with Geraniums

Nearly every ranch house is situated not far from some irrigating ditch, the banks of which could be covered with Ivy Geraniums, or dwarf geraniums of any harmonious assortment of colors. Geranium slips could be planted anywhere about the premises during the rainy season, and when well-rooted would survive the entire summer, blooming all the while with no water. (For further description of Geraniums, see next page.)



Wild Flowers and Annuals Grown without Irrigation

There are many annuals the seed of which may at the approach of the rainy season be scattered broadcast upon any preferred place about the premises. The winter rains will cause them to grow luxuriantly and bloom from early spring till far into the summer, with no more care than to pull up the weeds that appear at the beginning.

Here is a list of flowers that will bloom under such conditions:

A. & M. California Wild Flowers, Mixed, Per Pkt. 10c

A. & M. Collection of Annuals, ten packets, 25c.

African Daisy
Sand Verbena
Sweet Alyssum
Calliopsis
California Poppy

{ Collection
of ten
packets,
25c }

Shirley Poppy
Gaillardia
Marigold
Gypsophila
Portulaca



House Covered with Perpetual Blooming Ivy Geranium

The Home Flower Garden



The Flower Garden Makes the Home Beautiful

Plant Geraniums

Why is this beautiful flowering plant so much neglected? It requires little attention, little watering; it blooms all the year, in sun or in shade, nothing more beautiful for bedding or potting, for hedge or border, for arbor or window boxes. No other plant affords greater variety of flowers, both in type, color and variation of foliage. No other plant is so easily propagated. No other plant grows anywhere in all conditions of soil and climate so luxuriantly as the geranium. Every home in the city or country and every desert home may be surrounded, even buried in the dense cool foliage of the beautiful flowering geranium. Slips will bloom within a month after transplanting.

In order that the planting of geraniums may be encouraged, we are offering slips of various types of geraniums that shall be known by number, as we cannot name all of the varieties we have to offer. Each number is described, that you may order the one best suited to your purpose. Some varieties are very scarce, but we make no variation in price, but if we haven't what you order we will substitute another variety that is of similar description.

No.	Color	Height	Suitable for
1.	Salmon single	18 inches	Bedding or border
2.	Magenta double	2 feet	Bedding or hedge
3.	Scarlet double	2 feet	Bedding or border
4.	Red	Dwarf Ivy	Sidewalk or window box
5.	Pure White double	12 inches	Bedding or border
6.	Apple Blossom double	12 inches	Bedding or border
7.	Light center to rose edge	single 18 inches	Bedding, border or hedge
8.	Dark red double	10 feet	Hedge, arbor, or to cover fences
9.	Red	Climby Ivy	Sidewalk, fences, around palms
10.	Light Pink single	2 feet	Hedge
11.	Bright Scarlet single	18 inches	Hedge
12.	Red (foliage variegated green and white)		Border
13.	Sweet scented		

One slip each of the above assortment, 13 in all, 50c.

Send no order amounting to less than 25c.
Price—(6 slips 25c) (13 slips 50c) (25 slips 75c) (100 slips \$2.50) postpaid.

Aggeler & Musser Seed Co.'s Introductory Flower Seed Collection

10 Packets, 25 Cents, Postpaid

1 Pkt. Sweet Alyssum	\$.05
1 Pkt. Cosmos, Finest Mixed	.05
1 Pkt. Kochia or Burning Bush	.05
1 Pkt. Dianthus, Superb Mixed	.05
1 Pkt. Four O'Clocks, Mixed	.05
1 Pkt. Nasturtium, Dwarf Mixed	.05
1 Pkt. Pansy, Fine Mixed	.05
1 Pkt. Petunias, Single Mixed	.05
1 Pkt. Poppies, Superb Mixed	.05
1 Pkt. Mixed Sweet Peas	.05

\$0.50

For 25 cents we will send one full-size packet each of the above 10 varieties, postpaid. No change will be allowed in this collection. No others will be sold at these prices.

SUMMER FLOWERING BULBS

When this catalog reaches you it will be too late to plant the imported Dutch bulbs which are received in September, and should be planted at once.

If interested at that time, write us for prices, as we import a full line of Dutch bulbs for fall planting.

Special offer of Summer Flowering Bulbs

1 doz. Tuberose, Double Pearl	50c	Prepaid
1 doz. Tuberose, Mexican, Sweet-scented Ever-blooming	50c	
1 doz. Cannas (Bronze foliage—Shenandoah, Pink; King Humbert, Red); (Green foliage—Pennsylvania, Red; Indiana, Mottled red and yellow)	50c	
1 doz. Gladiolas, Mixed Colors	50c	
1 doz. Watsonia, Mixed Colors	50c	
1 doz. Iris, Blue or White	50c	

The entire six dozen for \$2.50 Postpaid.
Or ½ doz. each for \$1.25 postpaid.

Aggeler & Musser Seed Co.'s Half-Dollar Flower Seed Collection

20 Packets, 50 Cents, Postpaid

1 Pkt. Alyssum, Sweet	\$0.05
1 Pkt. Centaurea (Sweet Sultan)	.05
1 Pkt. Antirrhinum, Mixed	.05
1 Pkt. Asters, Fine Mixed	.05
1 Pkt. Balsam, Rose-Flowered	.05
1 Pkt. Candytuft, Empress	.05
1 Pkt. Canna, Mixed	.05
1 Pkt. Celosia, Dwarf Mixed	.05
1 Pkt. Japanese Morning Glory	.05
1 Pkt. Kochia or Burning Bush	.05
1 Pkt. Dianthus, Superb Mixed	.05
1 Pkt. Lantana, Mixed	.05
1 Pkt. Mignonette, Fragrant	.05
1 Pkt. Dwarf Mixed Nasturtium	.05
1 Pkt. Pansy, French Mixed	.05
1 Pkt. Petunias, Finest Mixed	.05
1 Pkt. Phlox, Grand Mixed	.05
1 Pkt. Poppies, Superb Mixed	.05
1 Pkt. Mixed Sweet Peas	.05
1 Pkt. Verbena, Finest Mixed	.05

\$1.00

For 50 cents we will send, postpaid, the above 20 full-size packets of Flower Seed. No changes will be allowed in this collection. No others will be sold at these prices.

Special bulb offer continued

All should be planted from February to May.

No change will be allowed in this collection. No others will be sold at these prices.

Los Angeles, the city of beautiful lawns, owes much of its popularity to the many flowering bulbs that bloom so profusely and so constantly in this climate, only requiring proper setting at the right time of the year and the right selection to attain the highest perfection of beauty.

The Home Vegetable Garden

A BIG HOME GARDEN

Thanks to the very commendable work of agriculture now directed at the public schools throughout the country, we look to see better conditions prevail in the homes.

Many a capable man with good intentions would have a garden if he only knew the simplest "first aids" to gardening. The next generation will know, and because they know, their homes will be more beautiful, and they will be more prosperous, for a good garden will supply possibly all and more vegetables than the family will consume. A very small plot of ground will do wonders toward giving the family more and better vegetables, besides reducing greatly the cost of living, and making better men and women of our boys and girls.

To encourage this kind of improvement for country homes, that life may be more enjoyable to the newcomer, unaccustomed to the solitude—

To encourage the city wives and daughters to transform unattractive homes into beautiful cozy spots that may well be the envy of their more wealthy neighbors, (such beauty spots always proclaim louder than words the refinement and culture of the people living there)—

To encourage the more youthful members of the household and to co-operate with the teachers where gardening is taught—

It is to aid this work that we have made of this catalog a veritable encyclopedia for the gardener and rancher. We are offering at one-half price the special collections of flower and garden seeds, selected for their adaptability to the Southwest and for their suitability to the average home.

Aggeler & Musser Seed Co's Introductory Vegetable Collection

10 Packets 25c

1 Pkt. Beet, Egyptian	\$.05
1 Pkt. Cabbage, A & M Early Drumhead...	.05
1 Pkt. Carrot, Danver Half Long.....	.05
1 Pkt. Cucumber, White Spine.....	.05
1 Pkt. Lettuce, Iceberg .....	.05
1 Pkt. Onion, Silver King.....	.05
1 Pkt. Parsnip, Hollow Crown .....	.05
1 Pkt. Radish, Icicle .....	.05
1 Pkt. Tomato, Home .....	.05
1 Pkt. Turnip, Purple Top Globe .....	.05

\$.50

For 25 cents we will send the above 10 full-size packets of seed by mail, postpaid—No changes will be allowed in this collection—No others will be sold at these prices.

Aggeler & Musser Seed Co's Half-Dollar Vegetable Collection

20 Packets 50c

1 Pkt. Beans, Fordhook Lima	\$.05
1 Pkt. Beans, Kentucky Wonder Wax.....	.05
1 Pkt. Beet, Egyptian .....	.05
1 Pkt. Cabbage, A & M Early Drumhead.....	.05
1 Pkt. Cabbage, Danish Ballhead .....	.05
1 Pkt. Carrot, Danver Half Long.....	.05
1 Pkt. Casaba, Hybrid .....	.05
1 Pkt. Corn, Oregon Evergreen.....	.05
1 Pkt. Cucumber, White Spine.....	.05
1 Pkt. Lettuce, Iceberg .....	.05
1 Pkt. Muskmelon, Tip Top.....	.05
1 Pkt. Onion, Bunching .....	.05
1 Pkt. Onion, Prizetaker .....	.05
1 Pkt. Parsnip, Hollow Crown .....	.05
1 Pkt. Peas .....	.05
1 Pkt. Radish, Icicle .....	.05
1 Pkt. Radish, Rosy Gem .....	.05
1 Pkt. Squash, Italian .....	.05
1 Pkt. Turnip, Purple Top Globe .....	.05
1 Pkt. Watermelon, Klondike .....	.05

\$1.00

For 50 cents we will send the above 20 packets of seed by mail, postpaid—No changes will be allowed in this collection—No others will be sold at these prices.

Is the best and biggest money saver and the largest producer of money-saving food supplies you can have. Plant a good big home garden.

The Secret Learned

If Germany can support 60,000,000 people from an area of land less than that of one state of our Union, we should go forward and learn their secret, and the first and truest progress will be learned in the home garden.

To grow well a plant requires a deep, mellow, moist soil, supplied with the right amount of air, heat and available plant food. An important step, then, in the successful growing of vegetables is to prepare the soil in such a way that it will be congenial to the best root growth. The soil for truck crops is a rich sandy loam—a soil containing varying proportions of clay, sand and organic matter. A good vegetable soil can be made in most back yards by intelligent management.

Adobe Soil

How can a clay soil be made mellow? Thorough tillage of the soil, the application of organic matter and lime, and drainage, will all help to do this. Occasionally the addition of sand or fine gravel is needed.

By Tillage

The soil should be made mellow to a depth of 12 inches by deep plowing and by thorough harrowing with a disk harrow. To do the best work the soil should be both plowed and harrowed the same day. If the lot is too small to plow, equally as good work can be done by spading the soil thoroughly, using a spading fork and crushing each spadeful of soil before another is lifted, then leveling the top soil with a garden rake.

Adobe Needs Skill

Of all the garden soils, clay is the most easily injured by tilling when it is not in the right condition as to moisture. If worked too wet, the particles all slide together into a compact mass. On the other hand, if worked too dry, the clods are hard to break. When clay soil is in the right condition to work, it will crumble apart if squeezed in the hand. If it sticks together, it is too wet. Clay soil should never be worked when it is wet, not even with a hoe. This is an important lesson for all gardeners.

In a deep, mellow soil, the plants grow more quickly, since larger root systems can be developed and more food and moisture taken in. A deep, mellow soil affords a larger reservoir to hold rain needed during the drouths that come in the growing season. Such a soil is warmer and contains air needed for the growing roots and for the bacteria that cause decay of organic matter or gather nitrogen from the soil air.

WHAT OTHER BOYS HAVE DONE YOU CAN DO

Children Gardening

That 50,000 children, in cities of the United States, have been cultivating back-yard gardens this summer, under school supervision, must be credited to the wisdom of the national bureau of education. It was this bureau which discovered that, in a single Indiana city, 85 per cent of the boys and girls were without employment during the summer, and that they had sufficient garden space available to produce every season at least \$85,000 worth of vegetables. If the bureau's plan of home-garden work, already taken up by about 100 cities, continues to be adopted, situations like that mentioned will become fewer, and the problem of what to do with school children in the summertime will largely be solved. There will also be some mitigation of the high cost of living.

Raymond Beckman, raised 6489 pounds of potatoes on one-tenth of an acre, value \$75.44.

Earl Butterfield raised \$46.55 worth of potatoes on one-tenth acre.

Bird Courtney raised 319 pounds of dry beans, worth \$12.75, on one-fourth acre.

Grant Cornell raised thirty-one bushels of potatoes, worth \$38.65, on one-fourth acre.

Harry Huffman raised seventy-one bushels of potatoes, worth \$41.17, on one-fourth acre.

H. K. Hotz raised \$11.45 worth of tomatoes on one-fourth acre.

Alfred Jackson raised seventy-five bushels potatoes, on one-fourth of an acre.

Oliver Jenkinson raised 3000 pounds of peanuts, worth \$150, on one acre.

William H. Martin raised \$7.30 worth of potatoes on one-tenth acre.

B. F. Morgan raised \$37.30 worth of potatoes on one-tenth acre.

Leavitt McQuestion raised \$35.15 worth of peas on one-fourth acre.

Wilbur Purrington raised \$66.73 worth of potatoes on one-fourth of an acre.

Leslie Porter raised 547 pounds of beans, worth \$21.28, on one-fourth acre.

Lowell Trubody raised \$59.75 worth of field corn on one acre.

Redmond Walsh raised \$30.99 worth of potatoes on one-fourth of an acre.

Hayes Keiser netted \$87.00 from one-fourth acre of garlic.

Gardening Made Easy



Spinach

Onions

Beets

Lettuce

Leek

Notice in this picture the method of planting two rows on a ridge. It is now generally practiced by the large gardeners, and should be applied in the home garden. The drainage this method affords produces cleaner, better, and earlier vegetables.

Remember your garden in Southern California works all the year; every month you may plant some seed that will keep fresh vegetables for your table every day in the year. Consult page 15.

The very commendable common sense system now adopted by many schools throughout the Southwest has suggested to us the idea of giving to the teachers and the pupils the benefit of the knowledge gathered in our twenty-four years of experience with gardening in the Southwest. We have therefore put into brief form but comprehensive information suitable to the requirements of pupils in their garden work as beginners.

First give the soil a good soaking, wetting it down two

or three feet deep. As soon as it can be handled without sticking to the spade, dig ten or twelve inches deep, turning the soil over and pulverize it thoroughly. Then make ridges to stand about six inches high, flattened to about ten inches wide on top and twelve inches between ridges. Drill the seed or transplant on each side of the ridge. Irrigate in the furrow between the ridges. By this method two rows are irrigated with one furrow, and you will have only one furrow to cultivate after each irrigation. It is easy to see the advantage of this method over the usual way of drilling on level ground and irrigating each row, often flooding the plant, which is harmful, particularly during the heat of summer. The following is a list of vegetables that should be planted the way we have illustrated in the picture:

Beets
Chard
Carrot

Kohl Rabi
Lettuce
Onion

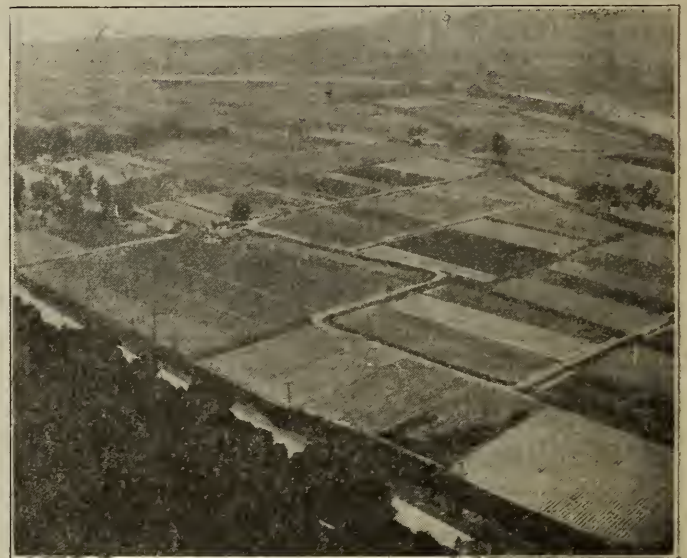
Parsley
Parsnip
Radish

Salsify
Spinach
Turnip



Pole Beans staked with four-foot lath

A convenient and economical method of training pole beans is to stake them with four-foot lath that can be purchased at any lumber yard for about 40 cents per 100.



Bird's Eye View of a Vegetable Garden

A & M School Garden Collection 40 Packets for \$1.00

1. Beet, Egyptian
2. Beans, Kentucky Wonder
3. Beans, Stringless Green Pod
4. Beans, Fordhook Lima
5. Beans, Broad Windsor
6. Cabbage, Early Drumhead
7. Celery, Golden Self Blanching
8. Carrot, Oxheart
9. Corn, Country Gentleman
10. Cucumber, White Spine
11. Cucumber, Lemon
12. Casaba, Hybrid
13. Egg Plant, New York Improved

14. Leek, Large Flag
15. Lettuce, Iceberg
16. Muskmelon, Tip Top
17. Mustard, Ostrich Plume
18. Watermelon, Chilian
19. Onion, Early White Queen
20. Onion, Prizetaker
21. Okra, White Velvet
22. Peas, Stratagem
23. Parsnip, Hollow Crown
24. Parsley, Moss Crown
25. Pepper, Anaheim Chili
26. Pepper, Chinese Giant

27. Pumpkin, Boston Pie
28. Pumpkin, Cushaw
29. Radish, Long Searlet
30. Radish, White Tipped Turnip
31. Radish, Large Japanese
32. Rhubarb, Winter Crimson
33. Salsify, Sandwich Island
34. Spinach, Bloomsdale
35. Squash, Hubbard
36. Squash, White Bush
37. Squash, Banana
38. Squash, Golden Crookneck
39. Turnip, Purple Top Globe
40. Tomato, Beefsteak

For \$1.00 we will send the above 40 full-sized packets of seed by mail, postpaid—No changes will be allowed in this collection. No other packets will be sold at these prices.
For Flower Seeds, see Page 10.

Friends and Foes of the Garden

By Burr R. Jones, Horticulturist

"Friends and Foes of the Garden," written by Mr. Burr R. Jones, Horticulturist. This meritorious article should be read by everyone interested in agriculture, whether it be only a small garden, a great ranch, or orchard.

Because of limited space here, we have included only a part of this article, but have printed it entire in a circular for free distribution to all customers. Therefore if you do not receive it with your first order, ask for it. It is free.

The insects in our gardens might be roughly divided into eight classes as to structure, habits, etc., as follows: The Beetles, the Grasshoppers, the Butterflies and Moths, the Scales and Lice, the Flies, the Bees and Wasps, the Spiders and Mites and the Ants.

If you have been observant of things of this kind, you have noticed the most of these kinds of insects, and perhaps you are saying: "I know of some more of which he has not spoken at all. Has he forgotten, or doesn't he know of worms and caterpillars, of which we find almost as many as of all the other kinds?"

In conclusion, we should emphasize the fact that insects are of different classes, and therefore require different treatment. A worm, or caterpillar, cannot be treated with the same kind of spray that is used for the aphides or scale. The former is exterminated with a stomach poison, the latter with a contact spray which closes up the breathing pores.

The following are the sprays recommended for worms, caterpillars, and all leaf-eating insects:

- | | | |
|--------|---|-------------|
| No. 1. | Arsenate of Lead Powder | 2 pounds |
| | Water | 100 gallons |
| | Or one tablespoon to two gallons water. | |
| | One-pound can, 50c. | |
| No. 4. | Paris Green | 1 ounce |
| | Air Slacked Lime | 3 ounces |
| | Water | 10 gallons |
| | One-half pound can, 25c. | |

Neither the Arsenate of Lead nor Paris Green will dissolve in water, so the spray must be kept well mixed while being used, and since the Arsenate of Lead stays mixed better, and is less likely to burn the foliage, we recommend it more highly.

SCALE INSECTS

- No. 1. Resin Wash, on trees and bushes that are in foliage. Price Resin Wash, one quart, 25c; one gallon, 50c.
- No. 2. One-inch cube of soap in one pint hot water; then add one pint coal oil and stir thoroughly. On growing plants, add two to three gallons of water, but for trees that have dropped their foliage—that is, in winter, add only one gallon water.
- No. 3. Dissolve one pound Whale Oil Soap (25c) in a gallon of hot water and add one pint of Crude Carbolic Acid (20c) and boil 20 minutes, very slowly, or else it will boil over. Then add 20 gallons of water. For use on trees or shrubs.
- No. 4. For scale insects on deciduous trees during winter—that is, on trees which become dormant and lose their leaves at that time—dilute one gallon of the Commercial Lime, Sulphur Solution, with 10 gallons of water, and spray thoroughly.

RED SPIDER AND MITES

- No. 1. Atomic Sulphur during Summer months.
- No. 2. "Lime Sulphur" during Winter, 1 to 35.
- No. 3. Flowers of Sulphur mixed with half as much hydrated lime.

Get up early in the morning, before sunrise, while the night dampness is still on the foliage, and dust the sulphur all over the leaves of the plants and trees. Then when the hot sun shines on the sulphur, you can smell the fumes from it; this destroys the mites. Often beans, hollyhocks, figs, dahlias and some other plants, as well as orange and lemon trees, turn a dull or rusty color and lose their leaves from the attacks of these mites, of which there are several kinds.

PLANT LICE

For the plant lice, like the green aphids on the roses, or the black ones on the melon, cucumber, peas or orange trees, a poison like tobacco extract mixed with strong soap suds seems to be very effective; these are sucking insects.

Black-leaf 40, price ¼-pound, \$1.25.

Aphine, garden size, 25c.

For ants on trees a simple remedy is to paint a band of Tree Tanglefoot around the trunk. This is a sticky preparation similar to ordinary "fly paper" and works the same way.

For ants in the ground, Carbon Bisulphide or Gasoline are effective. These are, however, injurious to vegetation and must be used with care.

CUT-WORMS AND GRASSHOPPERS

The most effective remedy is the poison bait, which is strewn around in the garden, care being taken not to touch any plants, as it will burn them.

The mixture is:

- | | |
|---------------------------------|-----------|
| Paris Green (½ pound, 25c.....) | 1 pound |
| Bran | 25 pounds |
| Molasses | 2 quarts |

PLANT DISEASES

Insect Pests do not complete the list of our troubles. We have also the plant diseases to contend with, and they are very serious. Plant diseases are favored by a variety of conditions, such as soil, atmospheric changes, etc.; they are directly due to fungi, bacteria, etc. The latter two being the most important, we shall restrict ourselves to them.

Fungi are plant organisms, but of a very low plane. The

largest and most highly developed are the toadstools, mushrooms, and similar plants. Other examples are the various molds and mildews that we find growing on organic material. Fungi are of two classes: Those which live on dead matter, which, being harmless to growing plants, we need not consider; and those which obtain their food by living on other living plants. These are the ones that cause the largest number of our plant diseases and therefore are very important. Among the common Fungi are the mildews, such as the rose mildew, the various rusts and smuts, which are often seen on our trees, flowers, and vegetables. These different plant organisms act in different ways on the host plants, causing in some cases leaf spots, decay of fruit or wood, yellowing of leaves, holes in the leaves, etc.

The control of fungus diseases by spraying is always effected by covering the plants with the poisonous spray before the fungus has really made its attack. The spray kills the spores or seed of the fungus before they can send out sprouts and penetrate the interior of the plants.

Some plant diseases are caused by bacteria, which are the very simplest forms of life that we know. They are similar to the germs and bacteria that cause the most dangerous diseases in the human body. Among plants, some of the common ills caused are pear-blight and walnut-blight.

The following are some of the common materials used to combat bacterial and fungus diseases of plants:

- No. 1. Sulphur. The ordinary "Flowers of Sulphur" is dusted thoroughly over the plants. It is also effective for the mildews. Use only the good quality of sulphur.
- No. 2. Sulphide of Potash. One ounce to three gallons of water as a spray for mildew.
- No. 3. Formaldehyde (price, per pint bottle, 40c). One pint to 30 gallons water. Used for soaking seed potatoes before planting, for scab.
- No. 4. Bordeaux Mixture (price, 1-quart can, sufficient for 12 gallons water, 50c). For rust, blights, scab, etc.
- No. 5. Lime and Sulphur Solution. For blights, shothole fungus and various other diseases.

A Few Words About Irrigating the Home Garden

In seed beds where small seeds are sown thickly, it is necessary to sprinkle the beds, never flood them. During the winter months, sprinkle only in the morning when the water is warmer than the dew. This allows all the heat that accumulates in the soil during the day to be retained far into the night. During the hot summer months, it will be necessary to sprinkle in the evening to revive the plants after a hot day.

When making a garden, whether for drilling or planting seed, or setting plants, always wet the ground thoroughly. GIVE IT A GOOD SOAKING TO A DEPTH OF TWO OR THREE FEET OR MORE. As soon as it is tillable—that is as soon as it can be spaded and pulverized, or when the soil will not stick to the spade—dig it ten to twelve inches deep, put stable manure into every other furrow and turn it under. This is needed for humus and fertilizer, either in sandy or loamy soil, and more especially in adobe soil. Pulverize the soil thoroughly and rake it evenly. While it is still moist, plant seed from one-fourth inch to one inch deep, in heavy soil, and a little more deeply in sandy soil. Planted this way, almost any variety of seed will germinate and show above the ground in from four to ten days, without irrigation. Never sprinkle a new garden before the plant is above ground, nor after, if you can irrigate between the rows. It is far better to irrigate than to sprinkle, and much less labor. Always mulch the soil after each irrigation, as soon as it mulches readily, but no sooner. To allow the soil to bake after irrigation is far worse than no irrigation at all.

To sprinkle the garden slightly each day during the summer months is of little value unless the ground is also thoroughly irrigated once each week or two, according to the nature of the soil. Slight sprinkling refreshes the foliage, but may not penetrate the soil more than one inch deep. Thus as the under soil dries, the roots get no moisture. The plants suffer, and you do not suspect the cause because you sprinkle each day. This is a common fault and the cause of many failures.

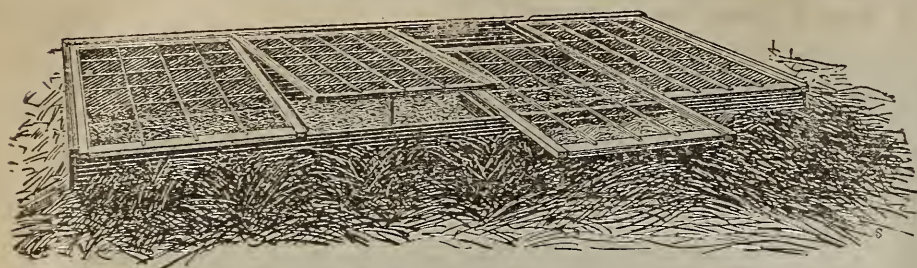
A Word About Sowing Seeds

Many seeds are small and the germination weak, therefore, sow them very shallow, often not more than one-eighth inch deep. This is because the germ or sprout must have air and light. If this is denied by too deep sowing, it dies before it reaches the surface.

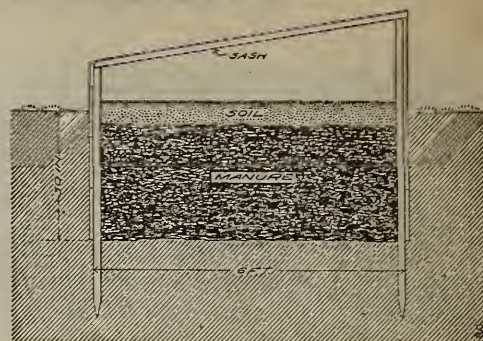
In order to assist small or weak seeds to grow, it is advisable to plant plentifully, because the many seeds will give strength to raise the soil where one could not do so.

This advice applies particularly to beet and melon seeds, but is applicable to all small seeds. It is easy to thin out the surplus plants. A good general rule is to plant seeds to a depth equal to from three to five times their diameter.

How to Make a Hotbed, Cold Frame and Lath House



Hot Bed



Cross-Section of Hot Bed

Every garden should have a hot bed in a sunny corner for the purpose of raising plants for early vegetables.

Dig a trench east and west twelve to eighteen inches deep. A bed three feet wide and ten feet long is large enough for any family garden. Board twelve inches high on the north side and six inches high on the south side. Fill twelve inches deep with strawy manure or weeds, moisten slightly, pack tightly, cover three inches deep with sandy loam; if the loam is mixed with some finely sifted sheep manure or leaf mould, it will greatly improve it. Sow the seed in rows across the hot bed north and south so that the sun will light both sides of the row during the day, making strong, healthy plants. Do not sow too thickly nor more deeply than one-fourth inch. Cover the hot bed with glass, not muslin. No less than twelve inches should exist between the glass and the soil, because plants must have air. Sprinkle always in the morning, or, if necessary to do so in the evening, use warm water. Sprinkle sufficiently to moisten the soil, but not enough to flood the manure, which would then become chilled and be worse than no manure at all. Raise the glass during the day, and close at night. Without ventilation the plants may be scalded during a warm sunny day. Before transplanting from the hot bed, all plants should be

hardened by exposing them to the sun for several days. Exercise proper judgment, lest they be destroyed.

LATHHOUSE

Lath houses are used to protect plants against the extreme heat, cold or winds. Four-foot laths nailed into frames on 1 in. by 3 in. by 12 feet, pine, are used. The height of a lath house varies from 8 to 12 feet. Lath houses are used for starting seedlings, cuttings, and the growing of ferns, smilax and asparagus strings. They are also used to shelter young plants and to transplant tender stock in boxes.

Lath houses in Southern California contain some very fine collections of ferns, begonias and palms. Lath houses can be made in any style to conform with other buildings. We do not recommend the use of lath houses for vegetable plants, but we find it very valuable in the propagation of eucalyptus, cypress, acacia and most all evergreen shrubs and trees.

AGRICULTURAL BOOKS

	Price	Pstpd.
A. B. C. of Agriculture, by Weld .....	.50	.55
Alfalfa, by Coburn .....	.50	.60
Art of Propagation, by Jenkins .....	.25	.30
Asparagus, by Hexamer .....	.50	.60
Avocado Industry, by Popenoe .....	.15	.20
Bean Culture, by Sevey .....	.50	.60
Cabbage and Cauliflower, by Allen .....	.50	.60
California Fruit and How to Grow It, by Wickson	3.00	3.20
California Vegetables, by Wickson	2.00	2.15
California Garden Flowers, Shrubs, Trees and Vines	1.50	1.60
1000 Questions in California Agriculture Answered, by Wickson	1.50	1.60
Celery Culture, by Beattie .....	.50	.60
Cereals of the United States, by Hunt	1.75	1.85
Chrysanthemums, by Herrington .....	.50	.60
1905 Dry Farming, by Campbell .....	.50	.60
1907 Dry Farming, by Campbell	2.50	2.60
Farm Grasses of the United States, by Spillman	1.00	1.10
Fertilizers, by Gregory .....	.30	.35
Flax Culture .....	.30	.35
Forage Crops, by Shaw	1.00	1.10
Garden Beautiful in California, by Braunton ..	1.00	1.10

	Price	Pstpd.
Garden Helps, by Hall .....	.75	.85
Gardening in California, by Lyon	1.00	1.10
Gardening in California Landscape and Flower, by McLaren	3.75	4.00
Ginseng, Kain's Book on .....	.50	.60
Insects and Insecticides, by Webb	1.50	1.65
Irrigation Farming, by Wilcox	2.00	2.20
Irrigation for the Farm, Garden and Orchard, by Stewart	1.00	1.10
Mushroom Culture, by American Spawn Co. ....	.35	.40
New Onion Culture, by Grenier .....	.50	.60
Onion Culture .....	.20	.25
Peanut Culture, by B. W. Jones .....	.50	.55
Potatoes, by Fraser .....	.75	.85
Pruning, by Bailey	1.50	1.75
Rhubarb Culture, by J. W. Morse .....	.50	.60
Roeding's Planters' Guide .....	.25	.30
Soils, by Burkett	1.25	1.40
Spraying Crops, by Weed .....	.50	.60
Strawberry Culture, by A. S. Fuller .....	.25	.30
Sweet Potato Culture, by Fitz .....	.50	.60
Talks on Manures, by Harris	1.50	1.60
Tobacco Culture .....	.25	.30
Tomato, by Tracy .....	.50	.60
Tomato Culture, by Root .....	.35	.40

LITERATURE FOR POULTRYMEN

	Price	Pstpd.
American Standard of Perfection (1915)	\$2.00	\$2.20
Artificial Incubation and Brooding .....	.50	.60
Barred, White, Buff, Plymouth Rocks .....	.50	.60
Bantam Fowl .....	.50	.60
Broilers and Squabs .....	.50	.60
Capons for Profit .....	.50	.60
Diseases of Poultry .....	.50	.60
Duck Culture, by Rankin .....	.75	.85
Ducks and Geese .....	.75	.85
Leghorns, Brown, White and Buff	1.00	1.10
National Standard Squab	1.00	1.10
Poultry Houses and Fixtures .....	.50	.60

	Price	Pstpd.
Poultry Architect .....	.50	.60
Poultry Remedies .....	.25	.30
Profitable Poultry Farming .....	.25	.30
Pacific Coast Rabbit Book .....	.25	.30
Rabbit Book, Caldwell's .....	.25	.30
Rhode Island Reds .....	.75	.85
Successful Poultry Keeper	1.00	1.10
The New Egg Farm	1.00	1.15
Turkeys, All Varieties .....	.75	.85
Two Hundred Eggs Per Year—How to Get Them ..	.50	.60
The Wyandottes .....	.50	.60
Western Poultry Book	1.00	1.10

BULLETINS AND CIRCULARS

Write to the College of Agriculture, Berkeley, Cal., for a bulletin or circular on any agricultural subject in which you are interested.

Farming a Science,—not all is chance.

The vegetable grower is the greatest speculator in the world, particularly in Southern California, and portions here and there throughout the Southwest. He has all United States for a market during the winter months, and all the arid Southwest in the summer time. He must consider well his soil, be an expert in the selection and use of fertilizers, in the selection of his seed suited to his soil, to his climate, to the time of planting and the market for which he intends to grow. He must know to perfection when to irrigate to cultivate, and when not to do so. He must also know when and how to plough. He must not only keep posted as to

market conditions and prices, but must figure ahead on these conditions.

When giving consideration to their approximate yields and values, take into account the cost in labor, irrigation, time to mature, and expense of marketing. All these figure in determining the net profit. Then consider too the adaptability of each crop to your soil and the purpose for which the crop is intended. All must be considered when deciding the advisability of planting field crops.

When in doubt buy Aggeler & Musser's seeds, and always consult AGGELER & MUSSER SEED CO. on all the above subjects. And keep this catalog.

VEGETABLE GARDEN CALENDAR FOR OUT-DOOR PLANTING 640 Questions Answered On This Page

Owing to the diversity of the soil and climatic conditions of the great Southwest, it is impractical to follow without some deviation any table that might be formulated. We believe this table is as nearly correct as any table can be made, yet the time of planting must vary with each season, and so seldom are the seasons at all similar that there is always an element of risk for the man who plants early. Each month, too, requires certain varieties best suited to the season and purpose for which it is planted.

KIND	SEED FOR 1 ACRE	SEEDS FOR 100 FEET OF ROW	DISTANCE APART FOR HAND CULTIVATION		DEPTH OF PLANTING (*2)	TIME OF PLANTING (*3)	READY FOR USE AFTER PLANTING (*4)
			ROWS APART (*1)	APART IN ROW (*1)			
*Artichoke	1 lb.	1 oz.	4 ft.	3 ft.	1 in.	Apr. to July	8 mos.
*Asparagus Seed	3 lbs.	1 oz.	1 to 2 ft.	3 to 5 in.	1 in.	Feb. to May	2 years.
*Asparagus Plants	14,000	60 to 80	2 to 3 ft.	15 to 20 in.	6 to 10 in.	Dec. to Mar.	1 year.
*Beans, Bush	25 to 50 lbs.	1 lb.	1½ to 2 ft.	4 in.	1 to 2 in.	Mar. to Sept.	2 to 3 mos.
*Beans, Pole	25 to 40 lbs.	½ lb.	3 to 4 ft.	3 ft.	1 to 2 in.	Mar. to July	2 to 3 mos.
*Beets, Table	10 to 15 lbs.	2 oz.	1 to 1½ ft.	3 to 4 in.	½ to 1 in.	All the year	4 to 5 mos.
*Brussels Sprouts	½ lb.	¼ oz.	1½ to 2 ft.	1½ to 2 ft.	½ in.	All the year	5 to 6 mos.
*Cabbage	½ lb.	¼ oz.	2½ ft.	1 to 2 ft.	½ in.	All the year	3 to 4 mos.
*Carrot	4 lbs.	¼ oz.	1 to 2 ft.	3 to 4 in.	½ in.	July to Jan.	4 to 5 mos.
*Cauliflower	½ lb.	1 oz.	2½ to 3 ft.	1½ to 2 ft.	½ in.	Jan. to May	4 to 5 mos.
*Celery	¼ lb.	¼ lb.	1½ to 3 ft.	3 to 4 in.	1 in.	Mar. to Aug.	2 to 3 mos.
*Corn, Sweet	10 lbs.	½ oz.	3 to 4 ft.	6 in.	1 in.	Mar. to Sept.	2 to 3 mos.
*Cucumber	3 lbs.	½ oz.	4 ft.	4 ft.	1 in.	Dec. to July	3 to 4 mos.
*Egg Plant	¼ lb.	1-3 oz.	3 to 2½ ft.	1½ to 2 ft.	½ to 1 in.	Mar. to Sept.	3 to 4 mos.
*Kale, or Borecole	½ lb.	1 oz.	1½ to 2 ft.	1 to 2 ft.	½ in.	All the year	3 to 4 mos.
*Kohlrabi	3 lbs.	¼ oz.	1½ to 2 ft.	4 in.	½ in.	All the year	3 to 4 mos.
*Lettuce	3 lbs.	½ oz.	1½ to 2 ft.	6 to 8 in.	½ in.	All the year	3 to 4 mos.
*Melon, Musk	1 lb.	½ oz.	4 to 6 ft.	6 to 8 ft.	1 in.	Mar. to July	3 to 4 mos.
*Melon, Water	1 lb.	1 oz.	6 to 8 ft.	8 to 10 ft.	1 in.	Mar. to June	3 to 4 mos.
*Okra	6 lbs.	1 oz.	2 ft.	1 ft.	1 in.	Apr. to July	4 mos.
*Onion Seed	3 lbs.	1 oz.	1 to 1½ ft.	2½ to 3 in.	½ to 1 in.	Aug. to Apr.	4 to 5 mos.
*Onion Sets	250 lbs.	2 lbs. sets	1 to 1½ ft.	2 to 2½ in.	1 in.	All the year	5 to 6 mos.
*Parsley	2 lbs.	¼ oz.	1 to 1½ ft.	3 to 4 in.	½ in.	All the year	4 to 5 mos.
*Parsnip	4 lbs.	½ oz.	1½ to 2 ft.	3 to 4 in.	½ to 1 in.	All the year	4 to 5 mos.
*Peas	60 lbs.	½ lb.	2½ to 3 ft.	2 in.	2 to 3 in.	Dec. to July	3 to 4 mos.
*Pepper	½ lb.	¼ oz.	1½ to 2 ft.	15 to 18 in.	½ in.	Jan. to Sept.	2 to 3 mos.
Potatoes, Irish	500 lbs.	3 lbs.	2 to 3 ft.	12 to 15 in.	4 to 6 in.	Mar. to July	3 to 4 mos.
Potatoes, Sweet	12,000	1 lb.	3 to 5 ft.	14 in.	3 in.	Mar. to Aug.	3 to 4 mos.
Pumpkin	1 lb.	½ oz.	6 to 8 ft.	6 to 8 ft.	1 to 1½ in.	All the year	2 to 3 mos.
*Rhubarb Plants	12 lbs.	1 oz.	1 to 1½ ft.	1½ to 2 in.	½ in.	Dec. to May	2 to 3 mos.
*Raspberries	5,000	33 plants	3 to 5 ft.	3 ft.	2 to 3 in.	All the year	3 to 4 mos.
*Salsify	6 lbs.	1 oz.	1½ to 2 ft.	2 to 4 in.	1 to 2 in.	All the year	3 to 4 mos.
*Spinach	30 lbs.	1 oz.	1½ to 2 ft.	2 to 4 in.	1 in.	All the year	3 to 4 mos.
*Squash, Summer	2 lbs.	¼ oz.	3 to 4 ft.	3 to 4 ft.	1½ in.	Feb. to Sept.	2 to 3 mos.
*Squash, Winter	1 lb.	¼ oz.	7 ft.	7 to 9 ft.	1½ in.	Mar. to Aug.	3 to 4 mos.
*Tomato	½ lb.	¼ oz.	4 to 5 ft.	2½ to 3 ft.	½ in.	Dec. to July	3 to 4 mos.
*Turnip	3 lbs.	1½ oz.	1 to 2 ft.	3 to 4 in.	½ to 1 in.	All the year	3 to 4 mos.

(1)—Distance apart varies with the season and soil.

(2)—Depth of planting varies with the season and condition of soil.

(3)—Time of planting varies according to local conditions with regard to temperature.

(4)—Time of maturity varies with the temperature and cultural conditions. This table shows required time of maturity after transplanting. It requires 6 to 8 weeks longer from time or sowing seed.

†—Drill and thin.

*—Transplant.

‡—Plant in hills.

SEEDS REQUIRED PER ACRE FOR FIELD CROPS IN SOUTHERN CALIFORNIA

VARIETY	NUMBER OF PLANTS OR AMOUNT OF SEED	HOW TO PLANT	AVERAGE APPROXIMATE YIELD	AVERAGE APPROXIMATE VALUE
Alfalfa	25 lbs. seed	Drill or broadcast	8 to 10 tons hay, or 600 lbs. seed	\$60; \$100 to \$150
Alfalfa	8 lbs. seed	Broadcast	3 tons hay, and pasture	
Barley	100 lbs. seed	Drill or broadcast	2 to 4 tons hay	
Beans, Bush	25 to 40 lbs.	Drill in rows 2 ft. apart	1500 to 2000 lbs.	\$35 to \$60
" Lima	50 to 60 lbs.	Drill in rows 3 ft. apart	1500 to 2000 lbs.	\$60 to \$80
" Windsor	100 lbs.	Drill in rows 2 ft. apart	Hog pasture and green manuring	\$75 to \$100
Beets, Stock	45 "	Drill in rows 2 ft. apart	20 to 25 tons of beets	\$100 to \$125
Buckwheat	20 "	Drill or broadcast	Green manuring	
Burr Clover	20 "	Drill or broadcast	Pasture and green manuring	
Canary	50 "	Drill or broadcast	1½ tons seed	\$75 to \$100
Cane, or Sorghum	10 "	Drill, or 40 lbs. broadcast	20 tons green fodder	
Carrots, Stock	4 "	Drill in rows 1½ ft. apart	20 to 25 tons of carrots	\$150 to \$200
Corn, Broom	10 "	Drill in rows 2 ft. apart	½ ton broom straw	\$50 to \$100
" Egyptian	10 "	Drill in rows 2 ft. apart	1½ tons grain	\$35 to \$45
" Ensilage	80 "	Drill in rows 1 ft. apart	30 to 50 tons	
" Field	10 "	Hills 2 ft. apart, rows 3 ft. apart	2 tons grain	
" Kafir	10 "	Drill in rows 2 ft. apart	1½ tons	\$35 to \$45
" Milo Maize	10 "	Drill in rows 2 ft. apart	1½ tons grain	\$40 to \$60
" Pop	6 "	Hills 1 ft. apart, rows 2 ft. apart	1 ton	\$90
Cotton	5 "	Drill in rows 4 ft. apart	1 to 1½ bales and seed	
Cow Peas	25 "	Drill in rows 2 ft. apart	Pasture and green manuring	\$60
Feterita	10 "	Drill in rows 2 ft. apart	2 tons grain	\$65
Flax	60 "	Drill or broadcast	1½ tons grain or green manuring	\$120
Foenugreek	35 "	Drill or broadcast	Pasture (damp land)	
Grass, Bermuda	20 "	Broadcast	Hay and pasture (damp land)	
" Italian Rye	20 "	Broadcast	Cut 2 tons per acre 4 times per year	
" Parra	40,000 stems	Plant in mud as rice, wet land	Cut 1½ tons per acre 4 times (damp land)	
" Paspalum	10 lbs.	Broadcast	Hay and pasture	
" Peren. Rye	20 "	Broadcast	Cut 2 tons per acre 3 times	\$50
" Rhodes	10 "	Broadcast	Cut in 100 days for fiber	\$40
" Sudan	10 "	Broadcast	Cut 2 tons per acre 5 times	\$40
Hemp	60 "	Drill or broadcast	Pasture and green manuring	\$40
Oats	80 to 100 lbs.	Drill or broadcast	3 tons hay or 1 ton grain	\$40
Rye	60 lbs.	Drill or broadcast	Pasture and green manuring	\$40
Vetch	60 "	Drill or broadcast	2 tons hay or 1 ton grain	\$40 to \$50
Wheat	60 to 80 lbs.	Drill or broadcast		

SEEDS AND PLANTS PER ACRE FOR VEGETABLES

VARIETY	SEED	PLANTS	YIELD	VALUE
Asparagus	3 lbs.	10,000	Indefinite	Indefinite, \$200 to \$300
Beans, String	50 "	Drill	Indefinite	Indefinite, \$100 to \$300
Beets, Table	12 "	Drill	10 tons	Indefinite, \$300
Cabbage	½ "	14,500	10 tons	Indefinite, \$80 to \$300
Carrot	4 "	Drill	500 sacks	\$200 to \$400
Cauliflower	½ "	12,000	8,000 heads	\$150 to \$250
Celery	¼ "	29,000		\$300 to \$600
Corn, Sweet	10 to 20 lbs.	Hills	400 boxes	\$150 to \$300
Cucumber	3 lbs.	2,100 hills	Indefinite	\$75 to \$400
Egg Plant	¼ "	7,000	Indefinite	\$100 to \$900
Lettuce	3 "	60,000	600 crates	\$200 to \$600
Melons, Casaba	1 "	680 hills	Indefinite	\$75 to \$300
Melons, Musk	1 "	1,200 hills	Indefinite	\$75 to \$200
Melons, Water	1 "	435 hills	Indefinite	\$50 to \$250
Onion	3 "	250 lbs. sets	10 to 15 tons	\$100 to \$600
Peas	60 "	Drill	Indefinite	\$100 to \$400
Peppers	600 "	12,000	Indefinite	\$100 to \$600
Potato, Irish	400 "	14,520 hills	60 to 100 sacks	\$100 to \$200
Potato, Sweet	1 "	12,000 hills	100 to 200 sacks	\$100 to \$200
Pumpkin	1 "	500 hills	15 to 20 tons	\$75 to \$100
Rhubarb	2 "	5,000 plants	Indefinite	\$50 to \$200
Spinach	15 "	Drill	12 tons	\$250
Squash, Hubbard	1 "	680 hills	10 to 15 tons	\$75 to \$200
Tomato	¼ "	2,000 plants	10 to 20 tons	\$100 to \$600
Turnips	8 "	Drill	500 sacks	\$100 to \$200

A & M SEEDS

AGGELER & MUSSER SEED CO'S

Vegetable Seeds are the Stand-
ard Seeds of the Southwest.

A & M SEEDS

The vegetables grown from A & M seeds are the standard vegetables at every market in which they appear. The following pages offer only the standard varieties that have been tried and proven to be adapted to certain conditions, and each variety is adequately described, that the purchaser need make no mistake in selecting the seeds best suited to the season and to his local conditions.

SEEDS PLANTED OUT OF SEASON, OR IN UNCONGENIAL SOIL MEAN LOSS TO THE GROWER.

Read the descriptions carefully; if yet in doubt, write us.

Vegetable Plants and Roots Millions of Them

We aim to have on hand throughout the year vegetable plants of every kind in their proper season.

Hot house plants for early transplanting may be shipped by express in flats of 100 plants; each flat weighs about 50 pounds. All hot house plants are thoroughly hardened by exposure in the open before sending out.

Cash must accompany all orders for plants.

	On Hand	Prepaid Doz.	Prepaid 100	Express Collect 1000	Weight Per 1000
Artichoke, Green Globe	Jan 1st to May 1st	\$1.25	\$8.00	\$...	...
Asparagus, Argenteuil, Palmetto.....	Jan. 1st to May 1st	.40	2.00	8.00	50 lbs.
Cabbage, Winnigstadt, Danish Ballhead...	All Year	.20	.75	3.00	50 "
Cauliflower, Snowball, Early Pearl.....	Sept. 1st to Apr. 1st	.20	.75	3.50	50 "
Celery, Dwarf Golden Self-Blanching....	Apr. 1st to Sept. 1st	..	.75	3.00	50 "
Chives,					
Egg Plant, New York Spineless.....	Apr. 1st to Sept. 1st	.75	4.00	25.00	100 "
Horse Radish, Bohemian.....	Jan. to May 1st	.25	1.00	8.00	25 "
Pepper, Anaheim Chili.....	Mar. 15 to Sept. 1st	.25	1.00	7.50	20 "
Chinese Giant	Mar. 15 to Sept. 1st	.25	1.00	7.50	20 "
Pimiento	Mar. 15 to June 1st	.25	1.00	7.50	20 "
Rhubarb, Wagner's Giant	Jan. to May 1st	1.25	7.00	Each 20c	...
Sweet Potato, Yellow Jersey.....	Mar. 15 to July 1st	.15	.75	3.00	15 "
Georgia Yam	Apr. 1st to June 1st	.15	.75	4.00	15 "
Tomato, A & M First Early	Feb. 15 to May 1st	.20	1.00	8.00	20 "
Rivers Bros.	Feb. 15 to May 1st	.20	1.00	8.00	20 "
Beefsteak	Feb. 15 to May 1st	.25	1.00	8.00	20 "
Stone	Apr. 1st to Sept. 1st	.20	1.00	8.00	20 "

After May 1st tomato plants grown outside, \$3.00 per 1000.

All orders for plants or roots must be accompanied with cash. We guarantee to send good plants, properly packed, and delivered promptly from the field to the carrier, but we cannot be responsible for negligence after they are out of our care, and on this account no plants will be sent C. O. D. Last season we made more than one thousand shipments

of plants by mail and express, and the instances of dissatisfaction were less than a dozen, and in every instance was caused by delay in transit.

Plants sent by mail are pulled and packed with damp moss in paper boxes, and shipped as far as the fifth zone.

A & M Artichoke



Six Artichoke plants in a family garden.

The seed may be sown at any time and transplanted when about eight inches high. It will mature in about eight months from time of planting the seed, but in Southern California the proper season to bloom is in March.

The best way to get a good artichoke is to secure plants from old stalks of some good strain, as seeds cannot be depended upon to produce any certain variety. One half dozen is enough for a family garden.

Transplant five feet apart in rows seven feet apart. When the young plants are attacked by aphid spray with "Black Leaf 40." About the time the buds are well advanced the under leaves often become a harbor for flies and aphid. When this occurs break off all the under leaves, clear the ground of all rubbish and spray with "Black-Leaf 40." You will then have a long season of large, clean buds.

Selected Large Green Globe

French stock is the standard variety. (Pkt.

Jerusalem Artichoke



Jerusalem Artichoke

Excellent for hogs

It is a most valuable food for hogs. It is said by many hog raisers that a hog fed on artichokes has never been known to have cholera. They grow to perfection here, yielding as much as 500 sacks per acre. They are grown from tubers the same as Irish potatoes. It requires 300 lbs. to plant an acre. Cut the tubers to single eyes. Plant in March and April two feet apart in rows three feet apart. Let them grow until fall and allow the hogs to harvest the crop.

The tubers are excellent for table use boiled as potatoes or parboiled and pickled in vinegar.

(Per lb. 20c) postpaid; (10 lbs. \$1.00) (100 lbs. \$5.00) f. o. b. here.

"Aggeler & Musser Seed Co.,

"Los Angeles, Cal.

"Dear Sirs: From the ten pounds of Pride of Calhenga Peas that I got from you I sold 600 lbs. that netted me \$30.00. I got from 1/4 lb. Early Snowball Cauliflower 13,500 plants in the field, planting the last of them the 22nd of October. Sowed the first seed July 5th, all set in field by 12th of August. Cut the first head the 8th of October. As you will see, this was less than two months in the field, one month and 7 days in seed bed. Have 6000 plants from first sowing, and from present indications every plant will head.

"A. C. Simpson, Santa Clara Co., Cal."

10c) (oz. 50c) (1/4 lb. \$1.50) postpaid.

Plants from good stalks, 15c each, \$1.50 per dozen, postpaid.

A & M Asparagus

See Plants Page 16

No vegetable is more healthful or more palatable than the tender asparagus that appears on the table very early in spring.

Every home garden should have a bed about ten by twenty feet, planting about one hundred roots. This would furnish enough tips from day to day to supply the family table.

Set the rows two feet apart instead of four as for field culture.

Culture for Field Planting

Drill the seed thinly in rows ten inches apart in your seed bed during March and April.

At the first appearance of rust, spray with the best grade of powdered sulphur. Transplant about January 1st, setting the roots twelve inches apart in furrows four feet apart and twelve inches deep.

Cover with two or three inches of soil, and on top of that three or four inches of well rotted manure thoroughly mixed with soil. This is sufficient for the first season, and will produce a marketable crop the following April, possibly March. Continue cutting until the sprouts become too small for the kitchen. Then allow them to grow to full size and spray the whole thoroughly with powdered sulphur during August, using only the best grade. This is to prevent or destroy any mildew, red spider or rust. In November cut the stalks close to the ground and burn them. Fertilize the rows with cheap coarse salt (one ton per acre). Cover the rows in hills like the picture. With proper hoeing and culture the asparagus rows will bear profitably for many years. One pound of seed will grow plants sufficient for one acre.

Palmetto The popular variety for the home garden or market. The tender sprouts are green and their delicious flavor makes this variety the favorite for table use. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (lb. 85c postpaid.)

Barr's Mammoth A large white sprout, the flavor of which is generally liked. This is an excellent variety for canning, where appearance is desired. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (lb. 85c postpaid.)

Asparagus Roots We have always on hand roots of the Palmetto and Argenteuil varieties. Two year old roots—(per doz. 40c) postpaid; (100 roots \$2.00) postpaid; (1000 roots \$8.00) f. o. b. Los Angeles.

Read carefully the pages of insecticides that you may order intelligently the right one for your purpose. Read page 11. It will guide you in making your selection.



Asparagus Field at Time of Marketing; Notice the Ridges

Argenteuil An excellent variety for the canner and early shipper. This variety is now more extensively grown by large planters and shippers because it is more prolific, and stands shipping better. Also its purple tinge is attractive, and its excellent flavor puts it on an equal with the Palmetto for table use.

(Pkt. 5c) (oz. 10c) (¼ lb. 35c) (lb. \$1.00 postpaid.)

Conover Colossal Nearly the same as Palmetto, possibly larger, but culture has so much to do with size and quality that it is difficult to state which is the better variety.

(Pkt. 5c) (oz. 10c) (¼ lb. 30c) (1 lb. 85c postpaid.)

To be a successful market gardener, it is essential that you have a full knowledge of insect life, that you may combat them intelligently and systematically. Consult the pages of this book devoted to Insecticides and Sprayers. See page 15 for literature on any agricultural subject.



Plant Asparagus Roots one foot apart in trenches four feet apart.

Argenteuil Asparagus

A & M Beans

All mail orders for beans should include additional ten cents per pound to cover postage. All orders for large quantities that would be cheaper to send by express or freight, we deliver to the transportation company at Los Angeles. We do not prepay transportation unless sufficient money has been sent for that purpose.

Market gardeners who are beginners and not familiar with gardening in the Southwest would do well to consult us either in person or by mail before buying, as to variety and time of planting. Special attention should be given to the instructions concerning the time of planting, which is an important factor in Southern California, as each month requires a different variety according to the market for which they are grown.

Culture for Home Gardens

During the early spring give sandy soil preference, but heavy soil in summer. When the ground is properly moistened and pulverized, plant bush beans one or two seeds every four inches, in rows twenty to twenty-four inches apart. If the soil is heavy, cold and wet, one-half inch is deep enough. Plant more deeply in sandy soil. During the cool spring months plant shallow; during the hot summer months plant deep to moist earth, if it should require five inches. Do not plant in muddy soil, nor irrigate immediately after planting, else the seed will rot. During the winter months do all irrigating in the morning, because the water from the pipe is warm and will help the growth. When applied in the evening the water chills the plants, cools the soil, retards the growth and causes mildew.

Mulch the soil as soon as it gets dry enough after each irrigation. All beans should be sprayed with powdered sulphur of the best grade twice during their season—once before the blossom appears and again just before the green bean is ready to pick. Apply the powdered sulphur in the morning of a bright sunny day before the wind arises, and before the dew has dried. It is not necessary to cover the foliage with sulphur thick enough to injure it, but if sulphur is scattered along the row so that the dust will pass lightly over the field, the fumes created by the heat of the sun will prevent mildew. Sulphur will not cure, but will arrest and prevent mildew.

Bush Beans

Round Green Pod Varieties

The following list comprises all the varieties best suited to general gardening. We have ceased to catalog others that would only mislead the gardener. Write for quantity prices on all beans.

Early Refugee or 1000 to 1 An all around favorite for the summer months. Round pod, medium size, tender, desirable for table and cannery. It is a favorite with the market gardener because it is a good shipper, a good seller, and very prolific. Plant from April to August. (Pkt. 5c) ($\frac{1}{2}$ lb. 25c) (lb. 40c prepaid) (10 lbs. \$2.50 f. o. b. here).

Stringless Refugee This variety is a decided improvement over the old Refugee in that it is entirely stringless, somewhat larger pods and more prolific, which is claiming a great deal, for the Refugee bean has long been considered one of the most prolific of all string beans. (Pkt. 5c) ($\frac{1}{2}$ lb. 25c) (lb. 40c prepaid) (10 lbs. \$2.50 f. o. b. here).

Stringless Green Pod One of the best varieties for first early spring planting. It is very prolific and tender, a great favorite with market gardeners for a quick maturing crop. (Pkt. 5c) ($\frac{1}{2}$ lb. 25c) (lb. 40c prepaid) (10 lbs. \$2.50 f. o. b. here).

Black Valentine A very hardy and productive green podded bush bean, with strong vigorous bush. In season a little later than our Earliest Improved Valentine, having the advantage of being suitable for both early and late planting. It will withstand early and late frosts that kill other varieties. It yields enormously and the pods are one-third longer than the Earliest Improved Valentine; they are perfectly round and straight. Owing to its many excellent qualities and large and handsome appearance it is a splendid sort for the market gardener. Very popular in the South on account of its blight resisting qualities; a long distance shipper. (Pkt. 5c) ($\frac{1}{2}$ lb. 25c) (lb. 40c prepaid) (10 lbs. \$2.50 f. o. b. here).

Giant Stringless Green Pod Makes an excellent succession to Burpee's Stringless Green-Pod when planted at the same time. The plants are of strong growth; pods slightly curved, quite meaty, being broadly rounded and saddle-backed; brittle and stringless at all stages. (Pkt. 5c) ($\frac{1}{2}$ lb. 25c) (lb. 40c prepaid) (10 lbs. \$2.50 f. o. b. here).

Flat Green Pod Varieties

Canadian Wonder Flat pod, of good flavor, not stringless, but otherwise tender. Very hardy. Desired above all others by gardeners growing on the foothills for winter shipping, because of its luxuriant growth and continuous bearing of long straight pods. Plant in September, October, November, December and January, according to your locality. (Per Pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 35c prepaid) (10 lbs. \$2.00 f. o. b. here).

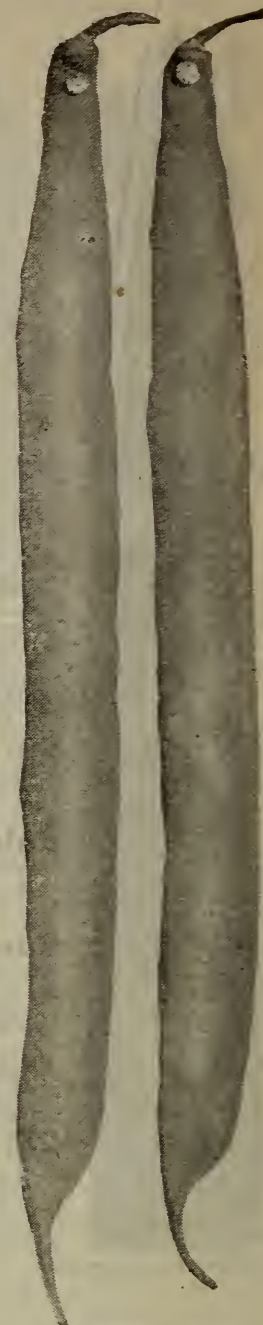
Six Weeks A strong, rapid grower, which matures quickly. Flat pod. Only desirable for forcing. Plant in February and March, also early in September and October. (Pkt. 5c) ($\frac{1}{2}$ lb. 25c) (lb. 40c prepaid) (10 lbs. \$2.50 f. o. b. here).

French Mohawk Long oval pod, very tender and prolific. Matures in six weeks. Desirable for a profitable short crop, as only two months is required from seed time to the end of the crop. Plant every month from March to October. (Per Pkt. 5c) ($\frac{1}{2}$ lb. 15c) (lb. 30c prepaid) (10 lbs. \$1.50 f. o. b. here).

Dwarf Horticultural Desirable both for green and dried beans. Stringless and of excellent flavor. It is of Italian origin and is very popular with the Italian population. (Pkt. 5c) ($\frac{1}{2}$ lb. 25c) (lb. 40c prepaid) (10 lbs. \$2.50 f. o. b. here).



Stringless
Greenpod



Canadian Wonder



Black Valentine

Beans for the Home Garden

A five cent packet of an early bush variety planted at the same time with a five-cent packet of a pole variety and $\frac{1}{4}$ lb. of Fordhook Bush Lima, will within seven weeks furnish a small family sufficient beans for a period of four weeks.

Therefore, we suggest that you plant on March 1st, Stringless Green Pod, Fordhook Bush Lima, Kentucky Wonder Wax or Superior Kentucky Wonder and Refugee; and on the first of each month thereafter until August 1st, after which time give preference to planting Refugee, French Mohawk, Ventura Wonder, White Seeded Kentucky Wonder and Fordhook Limas, because these varieties are more hardy to endure the early winter weather.

Market gardeners should read carefully the description of each variety.

Anyone having light, sandy soil that needs enriching, should plant it to beans, inoculating the seed with nitrogen culture.

WE OFFER ONE PACKET EACH OF STRINGLESS GREEN POD, REFUGEE, FRENCH MOHAWK, VENTURA WONDER, KENTUCKY WONDER WAX, KENTUCKY WONDER WHITE SEED, AND FORDHOOK BUSH LIMA. SEVEN PACKETS FOR 25c. POSTPAID.

No change will be allowed in this collection. No others will be sold at these prices.

Round Yellow Pod Varieties



Early Refugee Wax

Stringless or Refugee Wax

This is a favorite because of its hardy growth and enormous yield of tender, round stringless pods of excellent flavor. Plant from April until September. (Per Pkt. 5c) (½ lb. 25c) (lb. 45c prepaid) (10 lbs. \$3.00 f. o. b. here).

Prolific Black Wax Pod round straight, five to six inches long. Decidedly the most desirable for mid-summer gardening. Plant from April to August. (Per Pkt. 5c) (½ lb. 25c) (lb. 45c prepaid) (10 lbs. \$3.00 f. o. b. here).

Our seeds are the best that grow because they are planted and grown especially for us, and we get the best of the crop



Golden Wax

Flat Yellow Pod Varieties

Davis Kidney Wax Good bearer; pods are long, rustless and hardy; very tender when young. (Pkt. 5c) (½ lb. 25c) (lb. 45c) postpaid; (10 lbs. \$3.00) f. o. b. here.

Our Golden Wax Long, flat pod, rich golden-yellow, stringless. This variety is so superior to other strains of Golden Wax that we have discarded all but this. Plant early in April to August. (Pkt. 5c) (½ lb. 25c) (lb. 45c) prepaid; (10 lbs. \$3.00) f. o. b. here.

Ventura Wonder Wax Nearly all agree that this is a wonder indeed. Long flat pod, very prolific; bears early, and continues nearly all summer; planted in September, if not too cold, bears until January, being rust proof. This bean was introduced by us in 1900, and has been the market gardener's favorite since that time. Plant from February to October. (Pkt. 5c) (½ lb. 25c) (lb. 45c) prepaid; (10 lbs. \$3.00 f. o. b. here). Write for quantity price, as prices fluctuate.



A photograph of one plant
Ventura Wonder Wax

A WORD ABOUT STRING BEANS

No other green vegetable contributes so largely to the family table as the string bean. A small plot in the back yard ten feet square planted every two weeks from February 1st to September 1st will supply a large family abundantly with beans all summer. There is no waste of beans. When too old to eat green, shell them. When too old for shell beans, allow them to mature for use during the winter, when green beans cannot be had.

In early February, plant Canadian Wonders. Two weeks later plant the Six Weeks. In early March, the French Mohawk, later the Stringless Green Pod or any other variety you may prefer, until Sept. 1st, and then plant again the Six Weeks and Canadian Wonders.

Remember these varieties and their time of planting. It will mean success or failure to your garden.

Pole Beans



Arbor Bean

The Arbor Bean

This bean is new to the American people, but popular in Sunny Italy, where it is grown in many back yards over arbors to shade a porch or window. Within six weeks it will grow to a height of ten feet, and during the summer will exceed thirty feet, bearing edible beans at six weeks, and continues until frost. The beans are tender, and in flavor equal to the best. They should be sliced before cooking, same as the popular Scarlet Runner. If you want shade, be sure to plant these beans and you will have both shade and an abundance of beans.

The picture shows the growth of this bean the second year from planting. It bore a few beans all winter and the new growth was in bloom early in April. The vines were much more prolific the second season. This bean is very desirable where a shade is wanted quickly, and very valuable for the table, but should be cooked when quite young.

(Pkt. 5c) (¾ lb. 20c) (1 lb. 70c prepaid).

The Arbor bean will grow two crops of beans each season. When the first crop is harvested, allow the vines to nearly die for lack of water; then irrigate. In a remarkably short time new growth will begin, and soon a wonderful bloom will appear. Apply water frequently, because the blossoms fall quickly if allowed to suffer for water during the heat of summer.

Pole Beans

Superior Kentucky Wonder We have been growing this bean on our trial grounds for two years, and are now convinced it is superior to any of the other Kentucky Wonder types offered by us.

The illustration on this page is from a photograph of a single matured vine showing its immense prolificness. The large size pods fill perfectly and in the "snap" stage are deep green color, meaty, stringless and of delicious flavor. Vines continue to bear immense quantities throughout the season if kept picked closely. When allowed to ripen the shell beans of pure white color are most excellent for winter use. It is a pole snap bean that no home garden can afford to be without. It's the one pole bean for any garden and you will never regret planting it. It will prove a prizewinner in any contest.

Mr. Phillippi writes: "You have made no mistake in offering the Superior Kentucky Wonder. You cannot say too much in praise of it."

(Pkt. 5c) (½ lb. 25c) (lb. 40c postpaid) (10 lbs. \$2.50 f. o. b. here).

FACTS ABOUT THE SUPERIOR KENTUCKY WONDER

The pods grew to mature size fully a week earlier than the earliest of the other varieties. Second early was Kentucky Wonder Wax, third early White Seeded Kentucky Wonder. From one pole of three plants we pulled at one time 155 pods of mature size. The net weight of the 155 pods was 7 pounds, 2 ounces. The longest pod measured 11 inches, the shortest 9½ inches, and all were tender and stringless.

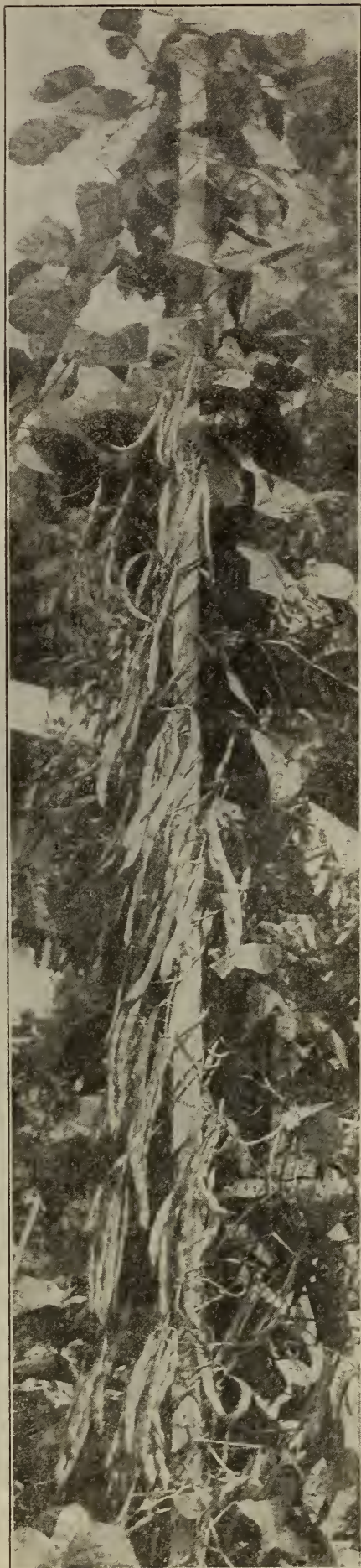


Kentucky Wonder Wax Poled Wigwam Fashion

Kentucky Wonder Wax The Pride of the Garden. This bean first appeared in the garden of Miss Callahan, on West Twelfth Street, this city. Our attention was called to it in 1898. Investigation proved it to be an entirely new variety. After two years we offered it in small quantities to our customers. Its popularity as a home garden bean soon reached nationwide proportions, and today is offered by nearly every seedman in the United States. It commences to bear when scarcely higher than the average bush variety, and keeps on producing until killed by frost. It is a rampant grower, one plant filling a pole with a mass of vines densely loaded with luscious beans. They are firm, entirely stringless, and when cooked deliciously rich and buttery. The seed is brown, closely resembling that of the Kentucky Wonder. Plant from April to August. (Pkt. 5c) (½ lb. 25c) (lb. 40c prepaid) (10 lbs. \$2.50 f. o. b. here).

A WORD ABOUT POLE BEANS

Many growers hesitate to plant pole beans because the back-yard gardener does not have the poles, and the large gardener does not have the time to place them. Both of these objections are easily overcome, and the greater profit in growing the pole varieties should be sufficient reason for going to a little extra care. Let the family gardener plant Oregon Evergreen corn early in March, and when the corn is two feet high, plant to every hill some Superior Kentucky Wonder, or Kentucky Wonder Wax. Thus you will have a crop of early sweet corn and an enormous crop of beans. To the market gardener, we recommend the corn, and also the four foot plaster lath. See page 12.



Superior Kentucky Wonder



Reduced from eleven inches

**White Seeded Kentucky Wonder**

White Seeded Kentucky Wonder This variety of the many pole beans may truly be termed the Market Gardener's Money-Maker. It is as hardy and rust-resistant as the Canadian Wonder or Black Valentine, yet tender as the Old Homestead. In the South where earliness and lateness mean so much to the market gardener, the White Seeded Kentucky Wonder is far ahead of other varieties. It is enormously prolific of firm pods that withstand shipping to almost any part of the United States. It matures ten days earlier than the Brown Seeded Kentucky Wonder. The seed is pure white, and on that account is a profitable commercial bean. (Pkt. 5c) (½ lb. 25c) (1b. 40c prepaid) (10 lbs. \$2.50 f. o. b. here).

Horticultural Pole Also referred to as Romaine, Cranberry, Italian and Cornfield. Its large succulent tender pods make it a desirable bean for the table. It is also one of the most desirable green shelled beans for succotash and excellent as a dry bean. (Pkt. 5c) (½ lb. 20c) (1b. 35c prepaid).

Scarlet Runner A valuable and delicious table bean as well as ornamental. The blossom is scarlet and very pretty. It is a rampant grower and on this account is often grown as an arbor for shading windows and porches. It is very productive of green pods that when taken quite young, sliced and cooked as string beans, are delicious. It is one of England's popular home garden beans. In this climate the roots survive the winter and bear two crops a year indefinitely. (Pkt. 5c) (¼ lb. 15c) (1b. 60c prepaid).

Kentucky Wonder Long, round pod. This is the most popular bean in Southern California, because here it grows to perfection; is, with the exception of the Superior Kentucky Wonder, far more prolific than any other variety, which, together with its other good qualities, makes it the gardener's delight. Plant from April to July. Do not plant later than August, as it is very prone to rust during the month of September. (Pkt. 5c) (½ lb. 20c) (1b. 35c prepaid) (10 lbs. \$2.00 f. o. b. here).

Cornfield Bean This is an old-time favorite throughout the East, where almost every home gardener and market gardener will plant some of these beans in the cornfield just after the corn has received the last cultivation, planting one hill at every other stalk in every other row, and as soon as the green corn has been marketed, the bare stalks are cut out, leaving a wonderfully prolific patch of beans that are very profitable at that late season. We believe it would be quite profitable if our market gardeners would pursue that method here. The Cornfield bean has a green pod resembling in length the Kentucky Wonder, but is larger and broader. It is entirely stringless. The bean is a light buff color, striped with brown. (Pkt. 5c) (½ lb. 20c) (1b. 30c postpaid) (10 lbs. 2.00 f. o. b. here).

White Crease Back This variety is especially valuable for its extreme earliness, and its habit of perfecting all its pods at the same time. Vines small but vigorous, and, in good soil, wonderfully productive, bearing pods in clusters from four to twelve. Pods medium length, silvery green, of the best quality as snaps and stand shipping better than most sorts. The seed is small, oval, very white, and hard. It is an excellent bean to cook dry or to sell on the open market as the small white bean. (Pkt. 5c) (½ lb. 20c) (1b. 35c prepaid) (10 lbs. \$2.00 f. o. b. here).

Celestial or Yard Long

A good table bean as well as a curiosity. It is very prolific and a rank grower. Should have ample arbor to climb upon. It should be grown more extensively in the home garden. It is of Chinese origin and one of the best vegetables emanating from that source. (Pkt. 25c) (¼ lb. 75c postpaid).

**Yard Long Bean**

Lazy Wife One of the best pole beans for snaps. The large fleshy pods are five to six inches long and entirely stringless when young, have a rich buttery flavor. When nearly matured they are delicious when shelled and cooked while yet green. The dry beans too are unsurpassed by any. The seed is white, nearly round, and some larger than a pea. (Pkt. 5c) (½ lb. 25c) (1b. 45c prepaid) (10 lbs. \$3.00 f. o. b. here).

Bush Lima Beans

**Los Angeles Wonder Lima**

Los Angeles Wonder This new lima proved to be all that we claimed for it last year, when we first offered it.

Mrs. F. M. Walters, of Anaheim, says: "It is far ahead of the Burpee's Bush for green beans, and will yield twice as many sacks of dry beans as the common lima. The beans are very large, and in flavor equal to the Monstrous Lima."

We can give it no better endorsement than Mrs. Walters, who has long been a successful market gardener, and knows.

(Pkt. 5c) (¼ lb. 20c) (½ lb. 30c) (1b. 50c) postpaid: (5 lbs. \$2.00) f. o. b. here.

The Monstrous Bush Lima Bean

A Great Money-Maker

Two crops a year for many years. Originated in Orange County, Cal. Introduced by us in 1907. This picture shows actual size of the bean.

In addition to this we have numerous testimonials to the effect that we have not exaggerated when we claim this to be the largest, most prolific, most profitable and best flavored Lima Bean now in existence. Like every other vegetable, it must have proper culture. Plant 6 feet by 6 feet, leaving one stalk in each hill. If convenient, plant in a sheltered place about April 1st. You will then be gathering beans during September and possibly until January, and when frost has destroyed the tender growth, prune as you would a grape vine. Soon new growth will appear and by May 1st you have a new crop as profitable as peppers or string beans or any other early vegetable. During July the vines will show age and become mildewed; prune as before and in October you will begin gathering your third crop. Continue pruning twice a year; irrigate and fertilize. (Pkt. 5c) (½ lb. 15c) (½ lb. 25c) (lb. 40c prepaid) (5 lbs. \$1.50) (100 lbs. \$20.00 f. o. b.)

There is nothing more profitable in a city garden than a dozen stalks of this wonderful bean. It is a common occurrence for our city customers to tell us of its great productiveness and excellent flavor.

One home gardener writes us that from one pound of seed planted in 1912 he gathered forty-two pounds of dry beans, besides all the green beans the family could use, and in 1913 he planted five

wonders of this wonderful bean. One grower near Redondo now claims to have picked more than seven hundred pods from one vine. Another Redondo grower realized \$260.00 off of ¼ of an acre from second crop during June and July, pruned the vines and began picking the third crop early in October.

"I want to say a word for the Monstrous Bush Lima Beans. They were the best lima beans I ever tasted. Had lovely beans for Thanksgiving, Christmas and New Year's. Had friends from the East and they thought the bushes the finest as well as the beans. Picked the last mess Jan. 10th, 1916, but not the last on the vines, as they were loaded, but one night the frost was a little too heavy, so we trimmed them to get ready for the early crop. Thanking you for advising the special kind." Mrs. Frank J. Lightfoot.

Dwarf Limas

SPECIAL FOR MARKET GARDENERS

The Dwarf class cannot be recommended too highly. The beans can be grown and gathered much more easily than the pole limas as the vines require no support. They can also be grown closer together than those of any pole variety. Dwarf limas are fully equal in quality to pole limas and as a rule are earlier maturing.

Limas require a longer season for maturing than other garden beans. Do not plant till the ground is dry, weather warm and danger of frost is over. If possible select rich, light soil. Plant in drills two to three feet apart, dropping the beans three to four inches apart and covering one and one-half to two inches deep. Hoe often but only when the leaves are dry.

Fordhook Bush Lima

In order to get the best results, plant one foot apart in rows 3½ feet apart. Although this bean has been offered for several years, it is comparatively a new variety. It is an improvement over the well known bush Lima because it is more prolific. It is a strong grower, more resistant to blight, and is more profitable to grow for the market because the pods remain green. This is of great advantage to the peddler, retailer and shipper. It has received universal praise. We recommend it to our customers for both home and market gardens,—for the home garden because of its excellent flavor and productiveness; for the market gardener because it is demanded by the shipper. (Pkt. 5c) (½ lb. 20c) (lb. 35c prepaid) (10 lbs. \$2.00 f. o. b. here).

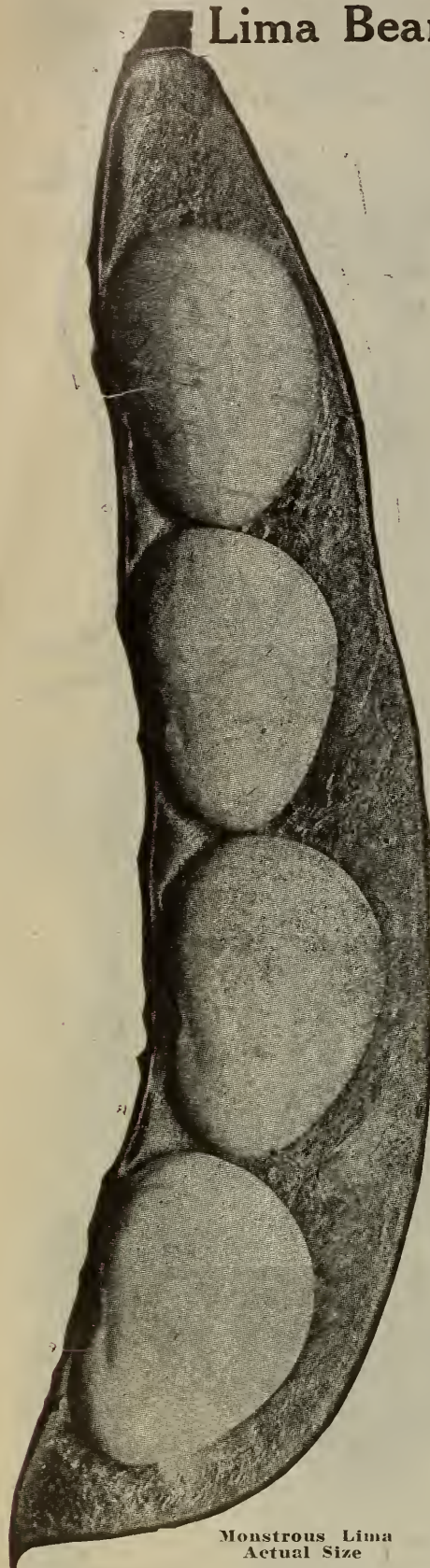
Improved Bush Lima

This bean differs from the old bush variety in being ten days earlier. Will yield one-fourth more tonnage per acre. The pods contain four to five beans that are larger and thicker than the old bush lima. Where the Improved Bush Lima is known the old variety is no longer in demand. (Pkt. 5c) (½ lb. 20c) (lb. 35c prepaid) (10 lbs. \$2.00 f. o. b. here).

Henderson's Bush—Small white Lima Bean, of excellent flavor and enormously prolific. It is grown so extensively here that it ranks commercially with common limas and other commercial varieties. It is used largely for canning. (Pkt. 5c) (½ lb. 20c) (lb. 30c prepaid). Ask for quantity price.

Burpee's Bush Lima—This bean has become very popular with the market gardener in all irrigation districts because it is earlier and more easily grown. There are no vines in the way when irrigating and cultivating. It is enormously prolific and keeps bearing a long time. Per (pkt. 5c) (lb. 20c) (by mail 30c) (10 lbs. \$1.50 f. o. b. here).

We are continually getting letters of inquiry for just such information as is given in this book. We are pleased to get the letters, but if the writers would first look to the subject of their inquiry, they would in many instances save themselves trouble and time.



Monstrous Lima
Actual Size

pounds dry beans, and the vines were then beginning to bear a second crop.

Mr. Conrad Schlender, Estero, Fla., writes: "I have tried your Monstrous Bush Limas for over two years. They do well as long as the dry season lasts. The last time I planted in late December, got a big crop in May, before the rainy season started. The heavy rains and hot sun finished them."

An application of the best grade of powdered sulphur would have prolonged the life of the vines, but they should have been pruned to allow a second growth.

Year after year we have new testimonials portraying the

Limas, Pole Varieties

Write for quantity price.

Pole Lima Pole varieties of Limas are far more profitable to grow than the bush varieties; what they lack in earliness they make up in continuous bearing. They should be planted from April 1st until September 1st.

The Skillman Lima This bean has been the market gardener's favorite for many years. It is a cross between the Burpee's Bush and the common lima. It will produce five sacks more per acre than the common lima. Each year we carefully hand-pick our seed stock, selecting only the true type of seed. There are no rattlers in the Skillman. (Per pkt. 5c) (½ lb. 20c) (lb. 35c prepaid) (10 lbs. \$1.75 f. o. b. here).

Large White Lima One of the best shell beans, either green or dried. Very prolific; pods large. (Per pkt. 5c) (½ lb. 20c) (lb. 35c prepaid) (10 lbs. \$1.75 f. o. b. here).

Commercial Bean Crops

SOUTHERN CALIFORNIA, THE LARGEST BEAN-GROWING SECTION IN THE WORLD.

Where values are counted by millions of dollars, you should not be negligent in the selection of seed stock, nor in the method of cultivation. It is the purpose of these pages to give information and assistance that will benefit the inexperienced grower.

COMMERCIAL BEANS

Comprise the following varieties: Common Lima, Henderson's Bush Lima, Lady Washington, Navy, Tepary, Pink, Blackeye, Red Kidney, Mexican Red, and Small Mexican. Under this heading we will also add the Broad Windsor, Garvanza, and Lentils.

All commercial beans should be planted in large acreage. It is easier at any time to dispose of a carload than less, and more profitable to the out-of-the-way grower who must always pay the freight to some central warehouse. It is advisable for the small rancher when contemplating the planting of beans, to agree with his neighbors to jointly plant not less than eighty acres, as it requires 80,000 pounds to make up a carload for Eastern shipment.

It often requires fifty cents per hundred pounds to ship small quantities to a warehouse, whereas a carload would be shipped direct from your nearest siding at no cost to you, thereby saving to you and your neighbors four hundred dollars on each carload.

Ask for price at the time of purchase. Because of the close margin at which this seed is sold, no price can be set in advance of the daily market. We have the best cleaning facilities on the Coast. All our seed is re-cleaned and even hand-picked when machinery fails.

BEAN CULTURE

General Directions For Growing

Soils Beans will grow on a variety of soils, and it has come to be a common expression among some farmers, in speaking of very poor soil, to say: "Too poor to grow white beans." Nevertheless, bean growing, to be the most profitable, requires soil well adapted to the crop, and which is in a good, or high, state of fertility.

Leguminous plants seem partial to limestone soils, and beans are no exception to this rule, as the crop reaches its highest development on these soils. The ideal soils for beans are rich, sandy loams, if well drained, or gravelly loam, if there is considerable fine silt and humus among the gravel. But beans can be grown fairly well on almost any soil; it is not well to have the soil too rich, however, as they are apt to grow to vine, and ripen unevenly.

Lands that will produce good corn or barley will produce good beans, and where the proper methods of cultivation are employed, they will produce far better returns than these grains, especially when grown for seed purposes. The beans and alfalfa in rotation add a liberal quantity of nitrogen to the soil, for the use of the other crops, thus making it easy to maintain the fertility without the use of commercial fertilizers.

Preparation of the Soil Plow the ground early, harrow frequently, and drag or roll well. Give an extra harrowing just before planting. It is much better and cheaper to cultivate your beans by harrowing the ground well before planting, as this subdues the weeds, so that they will not get a start before the crop can be cultivated. This is one of the most important factors in obtaining a good stand, and consequently, a successful crop. Old or tough sod should have an application of barnyard manure the first year, and some other crop than beans sown the first season.

Whatever drill you use, figure out the proper spacing, as they should be not less than 30 inches apart. On small acreages, an ordinary corn planter is practicable, and gives just as good results, but with slightly more labor.

King of the Garden Very prolific; large and desirable both for the home garden and for the market gardener. (Per pkt. 5c) (½ lb. 20c) (lb. 30c prepaid) (10 lbs. \$1.60 f. o. b. here).

Carpinteria This is just the lima for the market gardener to grow for main crop. It is early and large, and enormously prolific, without much vine. (Pkt. 5c) (½ lb. 20c) (lb. 35c prepaid) (10 lbs. \$1.75 f. o. b. here).

Early Leviathan We recommend this variety to be planted where it may have a trellis to climb upon. It is the ideal lima for the home garden. It is very productive. The pods grow in clusters. (Pkt. 5c) (½ lb. 20c) (lb. 35c prepaid) (10 lbs. \$1.75 f. o. b. here).

The Lewis Lima This is the lima of commerce grown by the thousands of acres because this variety will mature its crop early enough to be well out of the way before the rainy season. (Pkt. 5c) (½ lb. 20c) (lb. 35c prepaid).

We have many inquiries from would-be growers for land suitable for growing beans. If you have any such land you wish to rent for one crop, we suggest that you list it with us. We may have an opportunity to send you a desirable renter.

Cultivation As soon as the seed-bean drops off, begin cultivating, first using narrow shovels next to the plants, so that the dirt will not be thrown on them. Three or four cultivations is usually sufficient, but this depends on the season, and you will have to use your judgment according to conditions. Do not cultivate while the vines are wet, as the dirt will stick to them and cause injury.

Irrigation There is no set rule for irrigation; your experience with other crops will guide you, and the amount of water must be varied to suit the actual conditions. Water should be applied frequently enough to prevent the vines from suffering and to keep up a steady, continuous growth until harvesting time. An excessive amount of water will stunt the growth. If it should stand on the ground a long time in the hot sun, the stalks will be scalded. Regular irrigation is preferable to spasmotic, for if the stalk dries out completely near the base, no amount of water thereafter will restore a healthy growth.

Harvesting When the leaves have about half fallen off, the beans are ready to harvest. You should have a regular bean harvester for large acreages, and this will pull two rows at once, leaving a winrow at the rear of the machine. If the weather permits, let them lie until partially dried, say from six to twelve hours, in hot weather, or longer in cloudy, cool weather; then throw them into bunches, and let them cure well before hauling. If they should be rained on, turn the bunches over with a fork, just as soon as they are dry enough on top. Make piles of such size that they can be picked up in one fork full.

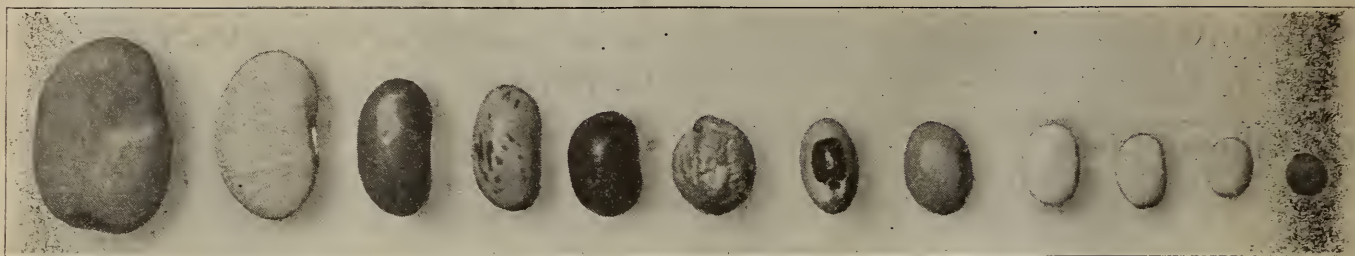
If you put your beans in a mow with a hay fork, drop them on a long pole just above the beans, so that they will not pack. If they are put in a stack, build it up straight, and cover with canvas or other suitable protection, and weighted down, so that storms cannot get to them. Be careful to keep out sticks and stones, as these will not allow a good job of threshing. Beans are so easily injured by the weather that all other farm work should be dropped when they are ready to harvest, and no time lost until they are under cover or threshed. They should be threshed as soon as possible after being cured. If the pods are allowed to get dry and brittle, loss will occur from shelling if handled much or hauled a long distance.

Threshing Arrange with a competent thresherman, who understands threshing beans and who has a reputation for good work. Regular grain threshers will crack the beans, unless specially rigged. On a crop of such value, you cannot afford to have beans wasted by going out with the straw, nor can you have them cracked in the thresher. In hauling from shed, barn, or field to the thresher, cover the rack with canvas in case some beans should shell out, and also use canvas covers around the machine when threshing. This facilitates the cleanup and saves several dollars worth on each acre. Personally see to it that the machine has been properly cleaned if it has been working on a different variety, for if a mixture occurs the beans will have to be hand-picked at a large cost. A good way to clean the machine is to have a few sacks of grain run through between different varieties of beans.

Value of Bean Straw A side issue of the bean industry of considerable economic importance is the use that is made of the bean straw as food for stock. Sheep are fond of the pods and thrive on them. They are also valuable as a feed for dairy cattle. The food value exceeds that of cornstalks or oats straw and is only slightly inferior to timothy hay. It contains three times as much protein as oat straw, twice as much as corn stover, and a third more than timothy hay, according to the experiments of the Cornell Agricultural Experiment Station.

Commercial Beans

Write for Quantity Price



Reading from left to right—Broad Windsor, Lewis Lima, Red Kidney, Spreckled Kidney, Mexican Red, Garvanza, Blackeye, Pink, Lady Washington, Navy, Tepary, Lentil.

Be sure to consult us when in the market for these varieties.

If only one pound is desired, send 20c to cover packing and postage, (5 lbs. 75c) postpaid. For larger quantities, ask for the prevailing prices.

Broad Windsor Sometimes called a tree bean because of its upright growth, bearing its pods at the axil of every leaf. It is sometimes called Horse Bean. Cooked as a shell bean it is very good for table use, and is grown largely and sold at the public market for that purpose. Owing to the succulency of its stalks and its productiveness, there is nothing better to grow for healthy hog pasture, and owing to its propensity for gathering nitrogen, it is one of the best soil renovators.

The proper time to plant is in September. It will withstand frost and a temperature cold enough to form thin ice.

Drill in rows as lima beans, using about fifty pounds per acre. It yields about two tons and sells for about three dollars per hundred pounds.

The Lewis Lima The common lima is grown so largely in California that it easily exceeds in acreage all the other varieties combined. There are many strains of the common limas, but the Lewis is conceded to be the best. Our seed is all carefully rogued in the field and hand-picked under our supervision at our warehouse. You will find no splits nor rattlers in our seed. It is a short-sighted policy to buy cheap seed from grocers.

Last season one buyer came to us with samples ranging in price from five to seven cents per pound. Our price was nine cents; but when he saw the beans in comparison he did not hesitate a moment to buy our beans.

Henderson Bush Lima This is a small white lima that is grown largely for canneries. It is advisable to secure a contract before planting. It is harder than other limas, and will thrive under conditions that will cause others to fail.

Tepary A very small white bean, decidedly smaller than the Navy. This bean is yet new in the commercial world. A brief history of its introduction would not be out of place here. We therefore print a letter from Dr. Geo. P. Clements.

"Gentlemen: In looking over your seed catalog, I find the Tepary bean seems to be coming into its own. I feel proud of the fact, for the first Teparies ever introduced into California came through my labors. This makes my sixth year from original wild seed. But let me correct you. The Tepary is not at all like the Navy. Its skin is translucent, and if you hold it to the light shows the berry through the skin. The Navy is a glazed skin, opaque. My Tepary yield has varied from one ton to 800 lbs. per acre. Three years ago I had fifteen acres; two years ago 20 acres, all from 3 lbs. of picked seed I got six years ago, from which crop I gave away 600 lbs. for experiment. I have given a five year test and we use them for our table ahead of all others. I find the Navy is sometimes mixed with the Tepary, and sold under the former name. This should not be, as it is going to play havoc with the seed, and a Tepary has no need of asking favors when once known."

The Agricultural Experimental Department has recognized the great merit of the Tepary as a drought resistant bean, and recommended it to be grown on the mesa lands where it is too hot and dry for our common varieties to grow. It is also recommended for a summer cover crop and soil renovator, as it needs no irrigation. It yields 20 to 30 sacks of dry beans per acre. The vines should be handled when damp to avoid loss by shelling. (See page 27).

Plant the Tepary with the ordinary drill that you would use for the Navy, but drop them farther apart, because it grows a low spreading vine ordinarily about two feet in diameter, but when irrigated it spreads as much as four feet in diameter; therefore when planting, estimate the quantity of seed and distance according to the richness of the soil and moisture. We advise sowing twenty pounds per acre.

Some Tepary Hints

1. Tepary: A shell bean more prolific than the Navy.
2. A native of the most arid part of the Arid Southwest.
3. Drought-resistant. Grown by Indians for thousands of years without irrigation with an annual rainfall of 9 inches.
4. Quick maturing. Sixty-five days from seeding to harvest. Available as a catch crop.
5. New botanical family and immune to common bean diseases.
6. Flavor, delicious, and distinctive. Cooks well. Very nutritious.
7. Appearance, beautiful white clean color, captivating the eye.

Pink, Mexican Red, Red Kidney All three of these varieties are good table beans. The **PINK** is grown more largely because it is more profitable to the grower and finds ready sale. The **MEXICAN RED** is the popular bean in Mexico, and should be grown more largely here. As a table bean it is excellent, both as a dry bean and as a green shell bean, and will become more popular as it becomes better known. The **RED KIDNEY** is an old-time favorite and commands a higher price than other varieties. It is more hardy and more rust-resistant. The pods are long and straight, bearing six to eight beans. It is particularly easy to thresh, yet does not pop in the field.

The Blackeye This bean is always profitable to the grower because it yields 1500 to 2500 pounds per acre without irrigation, and on almost any kind of soil. It is a good cover crop and soil renovator. The beans find ready market at a fair price, but usually below that of other varieties.

Lady Washington and Navy These two varieties go hand in hand. Both are small white beans, but the Navy is slightly smaller and is often distinguished by being called the Small White, while the Lady Washington is called the Large White, yet the largest is a scant half-inch long, while the Navy is scarcely more than one-fourth inch long.

The Navy is rust resistant.

Blue Pod Navy While this bean is no kin to the Navy bean, we have so named it that the reader may have some description of it. It is harder and more prolific than the Navy, which the dry bean so much resembles. The vine grows to a length of three or four feet, similar to the Creaseback, except for the blue pods.

We have only a few hundred pounds of this new bean, which should have ready sale in Ventura County, where it is already a popular variety. Mr. Shaw of Ventura, says there is no bean equal to it for table use.

Massachusetts Snow Drop Another small white bean of the Navy type, yet quite distinct. Strictly a bush vine, but very prolific. Mr. Philippi, who grew our seed, says: "It is far superior to the Small White in every respect, and it should be grown more largely to supercede the Navy, which does not compare with it in abundant bearing nor as a table bean. You cannot lose, and may gain, if you try it."

Garvanza and Lentil These are not beans, yet they go hand in hand on the market reports with beans, and we have listed them with our commercial beans.

Garvanzas. Planted in April, should be ready to harvest in August. It will endure light frost with little injury. They grow upright like a miniature tree, bearing the pods in the foliage about two feet above the ground. They are prolific, yielding twenty to thirty bean sacks per acre, and always commanding a higher price than beans. Cultivate the same as beans.

Lentils. Should be planted from January to May. They are nearly as hardy as the Winter Vetch, which the vine very much resembles. The Lentil commands a price nearly double that of beans, and will net the grower about the same value. Cultivate the same as peas.

Soy or Soja Bean

The sample shown in the picture was grown at Gardena by K. Nishida, who has demonstrated beyond a doubt that this bean can be grown profitably. Besides being used largely for table use, it is grown extensively for the oil it contains, and it enters largely into poultry food, on account of the protein which is considered an excellent egg-producer.

A delicious and healthful custard is made from the flour of this bean.

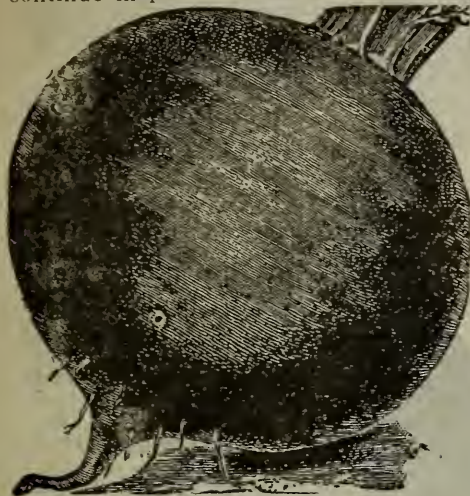
Cultivate same as other beans. The yield is about 2000 pounds per acre, and the price slightly higher than limas.



A & M Table Beets

Grow beets for the shipper. They will net you \$300.00 per acre. See Gardening Made Easy, page 12. Two ounces of seed for 100 feet of row.

Culture Beets may be planted all the year round where the temperature does not fall below 25 degrees. Sow the seed one inch deep in well prepared moist soil in rows eight or ten inches apart, or on ridges same as lettuce. Drill twelve pounds of seed per acre. Thin out to one plant every three inches, and transplant the discarded plants in any convenient spot about the garden. The Egyptian is a small, dark red, flat, smooth variety. It is sweetest and best for the table. Irrigate about every two weeks, unless the nature of the soil is such that more frequent irrigation is found to be necessary. Mulch the soil after each irrigation. Beets are ready for use in ten weeks and continue in prime condition for another ten weeks.



Crimson Globe

Crimson Globe

This splendid variety has now been grown quite extensively in many sections of the country and the many good reports received from old customers indicate that it gives most thorough satisfaction. It is of medium size, generally about three inches in diameter, very handsome in shape, with a remarkably smooth surface. It has a very small taproot. Gardeners prefer it for summer planting because the large foliage protects the beet.

(Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00 postpaid).

Eclipse Is a favorite for the family garden, very sweet, tender and of fine texture. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00 postpaid).

When beet tops are young and tender they may be cooked as spinach and are as good. The stem may be par-boiled and pickled for immediate use.

Early Crosby A long time favorite for the family garden. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 60c) (lb. \$1.25).

Extra Early Egyptian The market gardener's favorite on account of its beautiful appearance, earliness, and excellent flavor. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) postpaid.



A. & M. Bassano

Early Blood Turnip

Of large growth. Flesh very tender and retains its blood-red color when cooked. On account of its tall leaves it is a favorite summer time beet with market gardeners. (Pkt. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Half Long Blood

Smooth, growing to good size; color dark red; top small, of upright growth. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00 postpaid).

A & M Bassano Beet

Excels all other varieties for table use. Its delicious flavor, entire absence of fibre, smooth symmetrical shape and small root puts it in a class by itself for all-round good qualities. The market gardeners have recognized this for years and many will have no other. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00 postpaid).

Detroit Dark Red

This is an ideal beet for all purposes. It cannot be excelled for the table; free from all fibre and very sweet. It is the best of all for pickling. Even the tops are good when pickled. (Pkt. 5c) (oz. 10c) (¼ lb. 40c) (½ lb. 70c) (lb. \$1.20) postpaid.



A Word to Gardeners About Bunch Goods

This term is applied to vegetables that are tied in bunches, viz.—beets, carrots, radishes, turnips, parsnips, bunching onions, salsify, kohlrabi, and spinach. Every one of the above are all-the-year-round vegetables, and every one may be cultivated as lettuce, (see page 12). The growing of these vegetables is not only for Los Angeles consumption, but they are shipped with other vegetables in carloads to all parts of the United States. The tops are cut off for shipping.

Keep in mind that Southern California is the winter garden of the United States. Therefore make your big planting of these vegetables, also lettuce, cabbage and cauliflower in August, September and October.

See our Columbia planter. It is just the thing with which to plant all of these varieties. It will drop a definite quantity of seed the proper distance apart, thus avoid thinning out and unnecessary waste of seed.

Farmers in neutral countries of Europe and also in America, will refuse to grow the usual crops of normal times, when in times like these food crops are more profitable. This condition applies to beet seed in particular. It has become so scarce in Europe that the respective governments deemed it necessary to prohibit its exportation. Therefore it is a scarce article in this country, and it may be necessary to ask you to accept other varieties than you have ordered.

We will, when necessary to substitute, advise you if convenient, or give the correct label to the variety sent you, and should you wish an exchange, we will gladly comply with your instructions if it is possible to do so.

A & M STOCK BEETS

Note—Prices on half pound and pound quantities include postage or expressage prepaid. When sent otherwise deduct 10 cents per pound or fraction thereof. If desired sent by Parcel Post, necessary postage should be added. See our Parcel Post Schedule on cover page. If quantities are desired, do not fail to write for special prices, as all field seeds are subject to market fluctuations.

Culture—May be sown all the year round in drills one foot apart. Thin out to stand six inches apart in rows. Keep well cultivated; 8 pounds of mangel, or 10 pounds of sugar beet seed will plant an acre and yield 20 tons or more of beets.

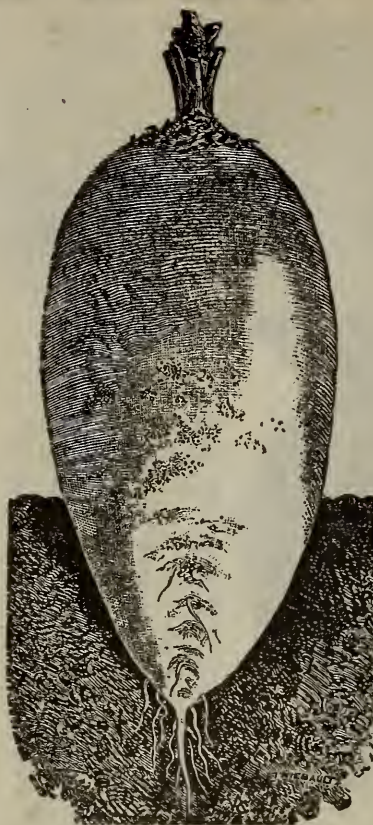
Thirty to forty tons per acre of stock beets is no unusual yield.

Half Sugar Rose

A distinct type of Sugar Beet, producing not only a good crop, but roots of giant size and richest feed quality. It has yielded 55 tons per acre, several tons per acre more than the heaviest producers of other sorts on the list. They have a small top, and are easily trimmed. The roots are heavy, but are so easily harvested that they may be up-rooted by a push of the foot. The flesh is white, solid, tender and very sweet and imparts a rich, pleasant flavor to dairy products, when fed to milch cows. Also particularly good for fattening hogs. Half Sugar Rose is a profitable Stock Beet to grow. (Pkt. 5c) (½ lb. 35c) (lb. 60c) postpaid; (10 lbs. \$4.00) f. o. b. here.

Giant Yellow Intermediate

A large variety always in favor with dairymen because it is rich, healthful to the stock, yields large tonnage per acre, and easily gathered. (Pkt. 5c) (½ lb. 35c) (lb. 60c) postpaid; (10 lbs. \$4.00) f. o. b. here.



Half Sugar Rose

Mammoth Long Red Mangel

The largest Stock Beet. Yields 40 to 50 tons to the acre. Will grow in land containing more alkali than any other beet. All stock except horses eat it readily. (Pkt. 5c) (½ lb. 35c) (lb. 60c) postpaid; (10 lbs. \$4.00) f. o. b. here.

Golden Tankard Mangel

Contains more sugar and less water than any other Mangel. Rich in milk-producing qualities, hence a favorite with dairymen. Horses will eat it. (Pkt. 5c) (½ lb. 35c) (lb. 60c) postpaid; (10 lbs. \$4.00) f. o. b. here.

Klein Wanzleben

(Sugar Beet). This variety is without question the best in cultivation. Not the largest in size, but the richest in saccharine. It will fatten hogs as quickly as grain. (Pkt. 5c) (½ lb. 35c) (lb. 60c) postpaid; (10 lbs. \$4.00) f. o. b. here.

Sludstrup

This variety is more extensively grown in Holland by dairymen than any other. Its uniform growth of large well-shaped beets rich in saccharine, its record for producing rich milk and sweet butter, has made it the popular beet of that country. We are always on the lookout for something better to offer our trade. We are sure you will add dollars to your dairy by planting the Sludstrup. (Pkt. 5c) (½ lb. 35c) (lb. 60c) postpaid; (10 lbs. \$4.00) f. o. b. here.

A & M Swiss Chard

Culture—Same as for beets; transplant 12 inches apart in rows 18 inches apart.

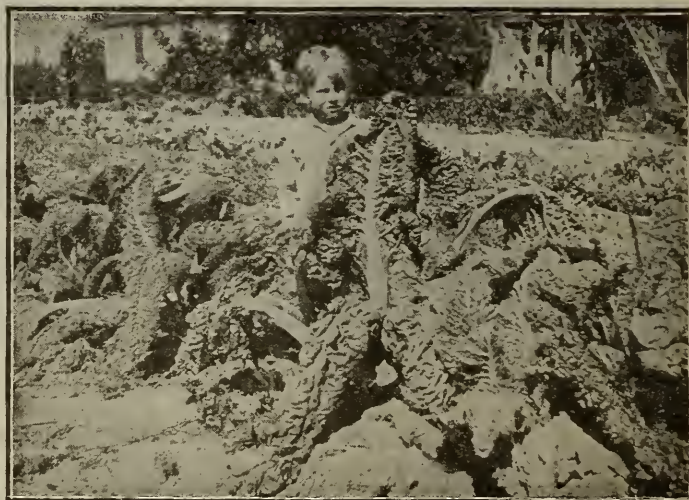
Grown for its leaves only; one of the best early greens. Cook the leaves as you do spinach and the stems in cream as asparagus. Leaves grow to enormous size, 20 inches to 2 feet in length. The plant is almost perpetual if kept



A Row of White Swiss Chard

trimmed, but it is better to have a new crop every year. The tender leaves make it a desirable plant for poultry greens; much more desirable than alfalfa, because it can be grown with less care and in any convenient place about the premises. Try it for your hens.

We have in this catalog studiously avoided listing a long line of inferior articles, but we offer only the best of everything, with instructions to the buyer when to plant each certain variety to procure the best results. If the instructions in this catalog are not followed with reasonable accuracy, failures may result. Therefore do not destroy this book as you need it constantly.



A Row of Lucullus Chard

Lucullus (pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 60c) (lb. \$1.00) postpaid.

White Swiss (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

A & M Brussels Sprouts A & M Chinese Cabbage

Culture—Same as Cabbage.

One oz. of seed will produce about 5,000 plants.

For Aphis—Spray with "Black Leaf 40."

This excellent vegetable, considered the most delicious of all the cabbage family, is finding increased demand in the public markets, and should be grown more largely. It is a long season grower and ranks as to time with our late varieties of cauliflower. Therefore, seed should be planted for succession from July 1st until Nov. 1st.

The increasing demand has spurred us on to look for something better than has hitherto been offered on this market. We have succeeded in securing a medium dwarf variety that bears larger heads, and every joint a head. (Pkt. 10c) (oz. 15c) (¼ lb. 50c) postpaid.

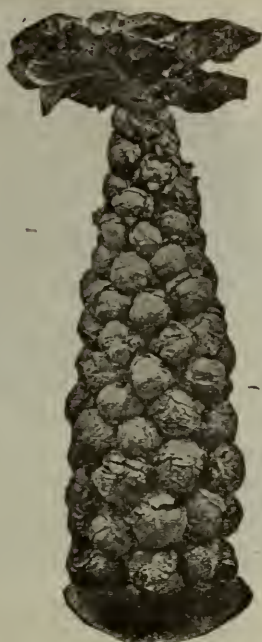
A & M BROCCOLI

Culture—Same as Cauliflower.

Early Purple Cape

Resembles the Cauliflower, but is hardier and more easily grown. Heads purplish brown in color, always close and compact. Fine flavor. Excellent for pickling. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00 postpaid).

Large White Tender and delicious flavor. Every home garden should include this. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00 postpaid).



Brussels Sprouts

A & M Cabbage

See Plants Page 16

"The demand for cabbage is usually unflinching. The man who grows cabbage need not have a great patch to make a comfortable income. It sells for about \$200.00 a car."

It should be borne in mind that the big planting of cabbage is intended to meet the eastern demand in midwinter and early spring, and that our time of planting is out of the natural season, and therefore often subjected to unseasonable weather which causes it to be stunted and often shoot to seed. The wonder is that any of it escapes.

We will introduce in 1918 a cabbage that will be immune to any unseasonable weather we may get in Southern California.

Improper culture, too, will stunt the normal growth of cabbage and cause the heads to prematurely go to seed.

Culture—The secret to grow hardy plants is to thoroughly prepare the soil in the plant bed. Loosen the soil to a depth of eight or ten inches, pulverize well. Sow in drills not too freely, about one-half inch deep, press the soil firmly over the seed; this is important. In about six weeks transplant in rows three feet apart, one foot in the row for Winnigstadt, eighteen inches for large-heading varieties. Keep the crop well watered and cultivated for when growth is checked the seed head matures and bursts forth as soon as moisture is again applied. This accounts for much cabbage going to seed. Early varieties mature about three and one-half months after transplanting, late varieties in about five months.

Should there be a cold spell when the thermometer lingers below 25 degrees, just at the time the cabbage begins to head, you may expect twenty-five per cent of your crop to shoot to seed.

For the Cabbage Worms—We do not hesitate to recommend Paris Green to be used up to two weeks before marketing the cabbage, because the spray only reaches the outer leaves that are not eaten, and because within two weeks the elements neutralize the poison. Also when only one tablespoonful of Paris Green is mixed with four gallons of water and kept well agitated there could not possibly be poison enough on a head of cabbage to even make anyone sick.

For Aphis—Spray with Black Leaf 40. Directions: One tablespoonful to two gallons of water. Add about ¼ lb. of soap.

Owing to incessant rains last January, much cabbage went to seed during the following month, but March, April and May cabbage was equal to the best ever grown, and brought a price much above normal. One grower sold \$15,000 worth of cabbage that cost \$4,000 to produce.

One large and constant grower says: "November transplanting escapes the hard winter season that causes so much loss by shooting to flower."

If your soil is alkaline, or sour, 1000 pounds of lime per acre will be of great benefit to your crop of cabbage, and do much toward destroying insect pests that might otherwise injure succeeding crops.

A Neglected Opportunity

Why the local gardeners have not gone more earnestly into the growing of this delicious cabbage is beyond our comprehension, and why the shippers have so long neglected this opportunity to add thousands of dollars to the exports from this state is little short of stupid, when wide-awake Californians are never known to have let an opportunity get by.

Hundreds of carloads of this Chinese Cabbage are being shipped to Eastern markets from Florida and Michigan, which shows that it has an all year round market in the East, while here, the home of the Chinese Cabbage, we have neglected it, where we have always grown a strain that far surpasses that hitherto grown in the East. There they have marketed a loose-leaved variety and sold it as **celery cabbage**. They are now awake to the short-leaved, solid headed strain we have, and it is called Chinese Cabbage. One grower from Florida writes that his field yielded **thirty tons** per acre. Think of it! Thirty tons against ten tons of Winnigstadt, and sold at a higher price.

Wake up to a good thing! Flood the Los Angeles market in order that our home people may become acquainted with it, and compel the shippers to handle it. Grow Chinese Cabbage and the demand for it will surprise you. Every home garden should have it.

Our seed is imported from China, is the genuine article as pictured here and cannot be compared with the Pe-Tsai seed grown in Europe. It is therefore impossible for us to compete with Eastern prices quoted you for an inferior strain.

Culture—Grow it as you do lettuce; transplant 10 inches apart in rows 12 inches apart.

Boiled with beef or pork it is excellent, having a much more pleasing flavor than cabbage. The inner leaves make better cold-slaw. (Pkt. 10c) (oz. 60c) (¼ lb. \$2.00) (½ lb. \$3.25) (lb. \$6.00 postpaid).



Chinese Cabbage

Copenhagen Market

Our European grower has given great praise to this variety. It is grown more extensively for the markets of Northern Europe than any other variety. It excels because of its extreme tenderness and delicious flavor, which is compared with cauliflower. We give it urgent recommendation to growers for the home market and for home gardens. (Pkt. 10c) (oz. 50c) (¼ lb. \$2.00) (½ lb. \$3.25) (lb. \$6.00) postpaid.



Copenhagen Market

A & M CABBAGE---(Continued)

Hollander Is one of the best of all the hard heading varieties. The heads are thick, round, of medium size and solid as a rock; of good flavor and heads well in our winter climate. It is a desirable sort for gardeners. (Pkt. 5c) (oz. 40c) (¼ lb. \$1.50) (½ lb. \$2.50) (lb. \$4.50) postpaid.

American Drumhead Savoy The best of all Savoy s. Short stump, large size, solid head. (Pkt. 5c) (oz. 25c) (¼ lb. 75c) (lb. \$2.50) postpaid.

Improved Red Heads of deep color and remarkably solid. Excellent for slaw. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00) (lb. \$3.50) postpaid.

A & M Early Drumhead Year by year this desirable sort becomes more and more popular. It is very early, tender, crisp, and just the right size for the dealer. Truckers like it because every stalk produces a head. (Pkt. 5c) (oz. 25c) (¼ lb. 85c) (½ lb. \$1.50) (lb. \$2.50) postpaid.



A. & M. Early Drumhead

All Seasons The heads are extremely solid, round, flattened on top and ready to market nearly as early as Early Drumhead, while considerably larger in size. It is called "All Seasons," because it is as good for autumn or winter as for early summer. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.15) (½ lb. \$1.85) (lb. \$3.50) postpaid.

Large Late Flat Dutch The standard sort for late crop. A large, sure header. (Pkt. 5c) (oz. 25c) (¼ lb. 85c) (½ lb. \$1.50) (lb. \$2.50) postpaid.

Henderson Early Summer A good medium-sized early flat head, very desirable for the table. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00) (lb. \$2.75) postpaid.

Autumn King For four years this Giant Cabbage has astonished all who have seen it at the market. Heads weighing from forty to fifty pounds are not uncommon. It is tender and of excellent mild



Autumn King

flavor, ideal for sauerkraut, and it will yield more tons of good cabbage per acre than any other variety. (Pkt. 5c) (oz. 30c) (¼ lb. 90c) (½ lb. \$1.60) (lb. \$3.00) postpaid.

A & M Scott's Cross



Scott's Cross

The introduction of this cabbage into the Southwest means millions of dollars to the growers. An ordinary average yield of Winnigstadt per acre is eight to ten tons. Scott's Cross will average twelve to fourteen tons of a better grade. This means about fifty dollars per acre more at no greater expense. The additional price of the seed amounts to \$1.50 per acre against a gain of fifty dollars per acre.

Scott's Cross is one of the best to grow for shipping. It is a cross between the Winnigstadt and the Flat Dutch. It promises to outrank the Winnigstadt, but up to the present time there has been some variation as to its type and uneven maturing, but it is such an excellent cabbage because of its hardness that we have contracted with our seed grower to make a perfect type by selection. Our 1916 crop of seed is improved to the extent that none but perfect heads were allowed to produce seed. Our 1917 crop will be a perfect type of the Scott's Cross, as pictured here. The grower and shipper will then agree that a perfect all-purpose cabbage has been attained. (Pkt. 10c) (oz. 80c) (¼ lb. \$2.35) (½ lb. \$4.00) (lb. \$8.00) postpaid.

Winnigstadt



Winnigstadt

No other vegetable listed in our catalog has retained its popularity so continuously and for such a long time as our Quedlinburg strain of Winnigstadt Cabbage, introduced by us in 1896. It is now, and has been ever since that date, the most popular cabbage grown on this Coast. It is popular because it is early, solid, good flavor, sure header, and good shipper. (Pkt. 5c) (oz. 25c) (¼ lb. 85c) (½ lb. \$1.50) (lb. \$2.50) postpaid.

Danish Ballhead

Since our introduction of this short-stemmed type of the Danish Ballhead, it has rapidly grown into popularity with both the grower and the shipper. Why? Because it is a sure header, adaptable to all soils, rarely shoots to seed even in most unfavorable conditions. Heads are solid and uniformly round. It is a good shipper and is not surpassed for table use. (Pkt. 5c) (oz. 45c) (¼ lb. \$1.50) (½ lb. \$2.50) (lb. \$4.50) postpaid.



Danish Ballhead Short Stemmed

A & M Cauliflower

Plants see Page 16

Culture—Prepare the soil as for cabbage. Seed may be sown from June to the following March. Transplant when the plants are six to seven weeks old. When the stems have become hardened in the bed they will be likely to head prematurely. Set out the plants 18 inches apart, in rows

three feet apart. Cauliflower should be kept growing constantly, as it may be injured by a check in any period of its growth, and go to seed; hence, irrigate freely. One ounce of seed produces 2,000 plants; six ounces to plant one acre.



California Pearl
(Trimmed after arrival) (As it arrives in the East)

California Pearl Cauliflower This variety is a favorite from California to New York, because of its excellent shipping qualities. It originated here and has made Southern California famous for her excellent cauliflower. The California Pearl is thoroughly adapted to a semi-tropical climate and is particularly suited for shipping because of the flower being completely enveloped within spiral curled leaves, which protect the flower from injurious exposure to rain, sunshine or frost, but particularly from injury in packing and in transit. It retains its fresh appearance longer than any other variety. It is decidedly the shipper's favorite. It is the gardener's, the dealer's and the consumer's favorite. To be packed for shipping it is only necessary to cut the stem at the base of the head, and the leaves about four inches above the head. This leaves foliage enough to cover the crown without wrapping in paper. These heads are packed two layers in a crate (16 inches deep), with the base at the top and bottom, the crowns facing in the center, usually 24 heads per crate.

The small grower may plant at any time from May until February, but for profit the shipper should carefully pursue instructions given with each variety.

When you consider that the amount of cauliflower shipped from California each year runs into thousands of carloads, valued at nearly \$1,000,000, and practically all of it is the California Pearl, the value of this type is of so great importance that we are proud to have been the introducers of it. At the time of the introduction, about the year 1900, we had only the late variety that required seven months from the time of planting seed. By selection we developed one to mature in five months. Do not be impatient for the heads to appear. They will grow to mature size in two weeks from time of starting to head.

Mr. O. W. Billingsley, of Florida, writes under date of January 19th, 1915: "Kindly let me know if the Early California Pearl Cauliflower completely envelops the flower with curled leaves like your Late, which I must say is a wonder. I am going to plant entire crop to it next year."

Snowball Cauliflower Scarcely a year goes by that does not bring out some complaint from someone that the Snowball variety heads out too quickly. It is the grower's impulse to blame the seed. It is sometimes almost impossible to account for it in each individual instance, but when we sell many pounds of seed to many customers, many having good crops and a few failures, it is unreasonable to attribute the cause to the seed.

We have always advised against too early planting, because of the danger of having excessive heat. Another cause of early heading is the flooding and baking of the seed bed, or after transplanting, irrigating and allowing the soil to bake. The cause in each case is excessive heat.

Therefore seed of the Snowball variety planted in May, June, or July, or improperly irrigated and cultivated, is subject to the danger of too early heading. Aggeler & Musser Seed Co. will not assume any responsibility for such failures, because the seed is not at fault.

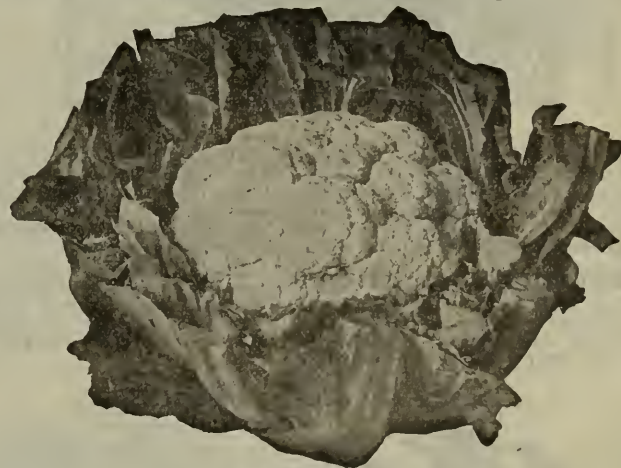
Last season again demonstrated the necessity of proper judgment as to time of planting, and also the important influence of the elements. Only a few years ago no grower planted cauliflower earlier than August, but year by year growers are crowding toward early planting, until now May and June are considered a proper time to plant, with the uncertain result that sometimes they succeed and sometimes they fail to have good results. Last season many fields headed out prematurely in August, but by the latter part of September these gardeners were marketing first class Snowball Cauliflower. A crop failure in August must not be attributed to the seed.

Year after year finds the market flooded with first class cauliflower from November until April. The Snowball variety prevails until January 1st, after which it is all the Early and Late California Pearl.

Early California Pearl Attains a height of three feet. Plant seed from June 1st until November. In six to eight weeks transplant twenty inches apart in rows two and one-half feet apart. (Pkt. 15c) (¼ oz. 60c) (oz. \$1.50) (¼ lb. \$5.00) (lb. \$18.00) postpaid.

Late California Pearl Attains a height of four to five feet. Plant seed July 1st to March 1st. In six to eight weeks transplant two feet apart in rows three feet apart. (Pkt. 10c) (¼ oz. 50c) (oz. \$1.50) (¼ lb. \$4.00) (lb. \$14.00) postpaid.

Extra Early Snowball Has proven perfectly satisfactory for the past twelve years. Planted in June it can be marketed in November. It is the best early cauliflower yet offered by any seed house. We have one customer who has bought ten pounds of this



Extra Early Snowball

seed for twelve consecutive years. He grows it in peat lands and always plans to market his crop from November 20th to January 1st. (Pkt. 25c) (¼ oz. 75c) (oz. \$2.50) (¼ lb. \$8.00) (½ lb. \$14.00) (lb. \$25.00) postpaid.

California Mammoth Medium early. Is the largest variety grown anywhere in the world. It is not uncommon to attain 16 inches in diameter, while 10 and 11 inches is the average. It is of California origin. (Pkt. 10c) (oz. \$2.00) (¼ lb. \$6.50) (lb. \$20.00) postpaid.

Autumn Giant Heads large, firm and compact, thoroughly protected by foliage. (Pkt. 10c) (oz. 80c) (¼ lb. \$2.50) (½ lb. \$4.50).

Dry Weather Cauliflower Dry Weather Cauliflower merits the confidence of all growers as an all year round variety. We give it special recommendation for the first early and late planting. It requires rich soil and good cultivation, but will withstand more drought than any other variety. (Pkt. 25c) (oz. \$2.50) (¼ lb. \$8.00) (lb. \$25.00) postpaid.

Bran Mash for Cut Worms—Paris Green 1 lb., lemons 3, molasses 2 qts., water 3½ gals., bran ½ bu. Mix bran and Paris Green dry; cut lemons into fine pieces. Mix all thoroughly.

A & M Table Carrots

Gardening Made Easy. See page 12

Sow one ounce of seed to 100 feet of row, four pounds per acre.

Carrots are very profitable because of the large quantity that a small patch can produce, and there is no waste, as any surplus may be fed to rabbits, poultry or other animals.

Carrots may be planted all the year round. Sow the seed from one-half to one inch deep in rich, moist, loamy soil, well prepared. Sow in rows eight inches apart, and as thin as the drill can be set to sow, or, if sown by hand, aim to leave two seed to the inch, or sow on ridges same as lettuce. Plant the Oxheart variety. It is the best for the table, and the most attractive for the market. The carrot has no insect enemies. It is a profitable crop to grow. Irrigate same as for beets. Carrots are ready for use in eight weeks and remain palatable for six months longer.

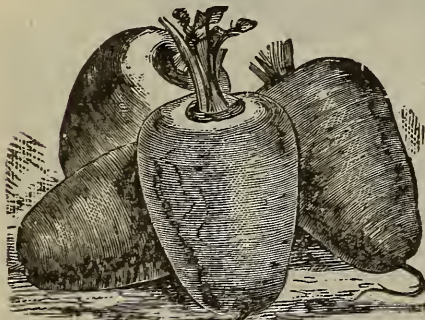
A & M Early Gem Somewhat resembles the Guerande or Oxheart, but is more uniform in shape, of finer texture and almost entirely free from the core usually found in other varieties. Flesh deep red, very tender and delicious in flavor. The roots general-



ly attain from four to five inches in length and about three inches in diameter, although they have been grown to nearly double these dimensions. For bunching, the handsome appearance is a marked advantage over all other varieties. It is a favorite with many market gardeners. (Pkt. 5c) (oz. 20c) (¼ lb. 60c) (lb. \$1.75) postpaid.

Guerande, or Oxheart Beautiful shape and color. The roots generally attain four or five inches in length and about three inches in diameter. Quality first rate, very tender, like the Early Gem, is the market gardener's favorite. (Pkt. 5c) (oz. 15c) (¼ lb. 60c) (lb. \$1.75) postpaid.

Early French Forcing



Early French Forcing

A small sort, but desirable on account of its extra early habit. (Pkt. 5c) (oz. 20c) (¼ lb. 85c) (lb. \$2.50) postpaid.

Danvers Half Long

The roots are smooth and of a rich, dark orange color. One of the best sort for a main crop, because it remains edible in the field longer than other varieties. (Pkt. 5c) (oz. 25c) (¼ lb. 85c) (lb. \$2.50) pre-paid.

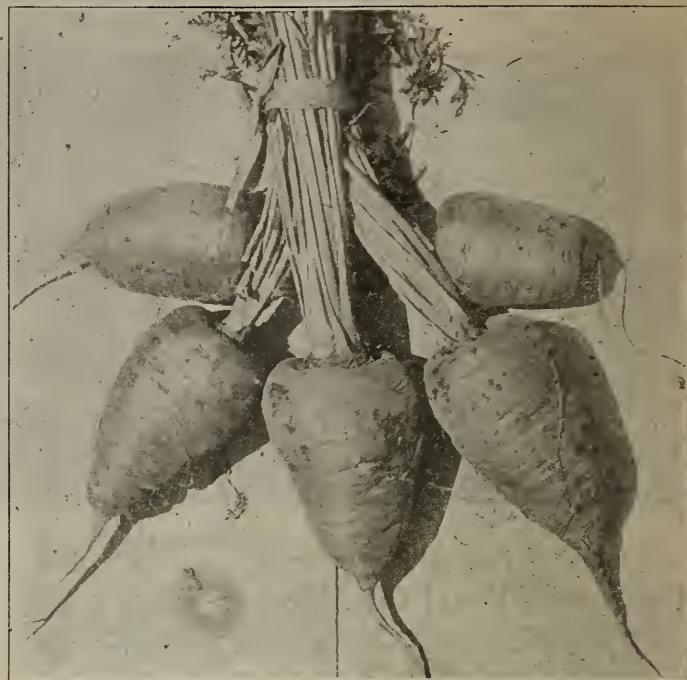
Use Fertilizer and Double Your Crops

Mr. Crew, of Riverside County, on eighty acres grew an average of more than two hundred sacks of potatoes per acre. He used barnyard manure and a liberal application of commercial fertilizer.

Read the pages in this book devoted to fertilizers.

Improved Long Orange A deep orange colored variety adapted for farm or garden culture. (Pkt. 5c) (oz. 10c) (¼ lb. 50c) (lb. \$1.50) postpaid.

Chanteney Flesh is a deep golden orange color, always smooth and fine in texture, very tender. (Pkt. 5c) (oz. 20c) (¼ lb. 60c) (lb. \$1.75) postpaid.



Oxheart

A & M Stock Carrots

Carrots are healthy food for stock of all kinds, and should be more generally grown.

Culture—Drill in rows 12 inches apart, and thin to three inches apart in the row. It requires five pounds of seed to plant an acre.

Half Long White Belgian Is raised exclusively for stock. Grows to a very large size; is easily gathered. Makes splendid feed for cattle, horses and hogs; known to yield forty tons per acre. Will keep four or five months after pulling. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (lb. \$1.00) postpaid.

Large Yellow Belgian Is similar to the above, but with a light orange color; said to be richer, but does not keep so well. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (lb. \$1.00) postpaid.

Half Long Giant White The largest of all stock Carrots, and desirable because it does not grow to a great depth, and although six inches in diameter, there is no hard core. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (lb. \$1.00) postpaid.

Mastedon (Cow Horn) Desirable because it stands well above ground, thus being easily harvested. Although six inches in diameter, there is no hard core. We give the Mastedon special recommendation to dairymen. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (lb. \$1.00) postpaid.

A Little Hint to the Newcomer

You have purchased your land, but you are all at sea about season. What to plant and when to plant it is a puzzle; just read this catalog, and you will find the answer. But that is not all; you want more advice. Well, just write us, stating the nature of your ranch with regard to the following conditions,—sandy, loam, adobe, swamp, mesa, foothill, irrigation, acreage, and proximity to market. 'Are you a gardener or rancher. We may advise you to plant beans in the fall during September and November. When they are marketed plant potatoes or corn (as your conditions may suggest). When this crop is harvested plant potatoes again and casabas. Thus you will have three crops within twelve months. Such information is often a surprise to the newcomer, but the great Southwest is full of surprises and great possibilities.

As soon as you have learned the trick, you are one of "us," and your letters home will cause your friends to say: "There is another California prevaricator." You just can't make them believe it until they come.

Write to College of Agriculture, Berkeley, Cal., for Circular 121, entitled "Some Things the Prospective Settler Should Know."

A & M Celery

Culture—Sow one-half ounce of seed to 100 feet of drill; ¼ lb. per acre. Sow the seed from Jan. 1st to April 1st, in drills six inches apart, not too thick in the row to secure stalky plants. In June when the plants are strong, transplant to furrows three feet apart and six inches deep. Set the plants six inches apart in the furrows; as the plant grows fill the earth toward the plant to secure proper bleaching. Never allow dirt to rest on the heart of the plant. Never work in celery when it is wet with rain or dew. Spray frequently with Bordeaux.

Why the Hollow Stem

"In 1913 the central portion of our prize Celery plot was almost a total loss from hollow stalk. This is another trouble laid at the door of "cheap seed." One of my competitors, in examining the crop, asserted that the hollow stalk was caused by poor seed. But I had used only one lot of seed in that plot—and all the outside rows and one row in the center, planted single style (we practice double-row planting almost exclusively), were as fine, solid specimens of Celery as one would desire for holiday trade. The fresh, manure mulch, together with some nitrate of soda, had made such an immense growth that the light had been excluded, causing weak, hollow stalks. Since then we have spaced rows farther apart and had no hollow stalk. Neither have we had any hollow stalks, other than the above instance."



Actual Photograph of Golden Self-Blanching Celery, from California-grown Seed

Golden Self Blanching (California grown seed.) Another year has demonstrated that our strain of California grown seed is equal to the imported in producing good celery.

Every grower in Florida that tried our California grown seed in 1915 ordered again in larger quantities for 1916 planting. The seed we now offer was grown by an expert whose seed is now accepted by all who have used it as fully up to the imported. We now offer it to you with our full recommendation. (Pkt. 10c) (oz. 60c) (¼ lb. \$2.00) (lb. \$6.00) postpaid.

From C. C. Lee, New Mexico: "I have found your seed to be the best planted this year. Have seven thousand celery plants ready to transplant from 2 oz. of Dwarf Self-Blanching Celery seed."

There was about 5000 acres planted to Golden Self-blanching Celery in California last season and fully 80 per cent of the seed planted was California grown.

Mr. J. B. Rice says: "I planted the imported and your California grown seed side by side at the same time. One-fourth pound of your local seed produced more good strong plants than one-half pound of the imported seed. If there was any difference in the field when ready for market it was in favor of the stronger plants from California seed. From June 20th to July 15th I sold 1573 dozen No. 1 grade at 75c per dozen and 512 dozen No. 2 at 40c per dozen. The No. 1 grade went 5 dozen to the crate. I realized \$1385.55, with an expenditure of about \$250.00. Of course I had the first celery on the market."



Blanching Celery with Boards

Paris Dwarf Golden Self Blanching

(Imported Seed.) This is the variety so extensively grown in the peat lands of Southern California for the Eastern market. It withstands the cold winters much better than the White Plume variety. It is a nice size for crating, and its rich golden yellow makes it desirable for the market. Our imported seed has given entire satisfaction the past twelve years. It is reliable. (Pkt. 10c) (oz. \$1.50) (¼ lb. \$5.00) (½ lb. \$8.00) (lb. \$15.00) postpaid.

Giant Pascal

It is a green top, much superior to the California green top. It is a great favorite in the eastern gardens. (Pkt. 5c) (oz. 25c) (¼ lb. 85c) (lb. \$2.50) postpaid.

Calif. Giant White Plume

Best for home garden. We have now the grandest strain of White Plume Celery ever offered to the market gardener. One stalk frequently weighs above five pounds. It is solid, and crisp, with a decidedly salty flavor derived from the alkaline soil in which it was grown. On the peat lands it attains its highest perfection. (Pkt. 5c) (oz. 25c) (¼ lb. \$1.00) (lb. \$3.00) postpaid.



Celery Seed for Flavoring

Per lb. 50c postpaid.

Smooth Prague, Celeriac

A large celery flavored root used extensively for flavoring soups, pickles, etc.; also relished sliced as a salad with pepper and vinegar. It is also used to flavor chicken and potato salad. (Pkt. 5c) (oz. 20c) (¼ lb. 75c) postpaid.

A letter from Mr. Harry Bailey, who makes a specialty of growing Celeriac, says: "Save me ½ lb. of your Celeriac if it is the same I got last fall. It is the best I ever had."



CELERIAC

Write College of Agriculture, Berkeley, Cal., for Bulletin No. 208, entitled "The Late Blight of Celery." See agricultural books, page 14.

A & M Sweet Corn

HINTS TO MARKET GARDENERS

Plant Early Adams in February. Plant Oregon Evergreen every two weeks from March 1st until August 1st. From August 1st until October 1st plant Large Adams. For the home garden plant Country Gentleman and Golden Bantam every two weeks from March 1st until October.

Note—Prices on half pound and pound quantities include postage or expressage prepaid. When sent otherwise, deduct 10 cents per lb. If desired sent by Parcel Post, necessary postage should be added. See our Parcel Post schedule on cover page. If large quantities are desired, do not fail to write for special prices.

Culture—Plant from February 15th to September 1st in hills 18 inches apart, in rows three feet apart. Allow two stalks to the hill, break off all side shoots; cultivate after each irrigation until the corn shades the ground; irrigate every two weeks until in the milk, then once or twice a week, and this will produce a solid tight husk, which will prevent the worms from doing much damage.

We are ever on the lookout for something better than that which we have. We are constantly trying out new varieties that show merit, but we studiously refrain from offering to our customers anything new unless it is better than that which we have. It is this policy that has kept the Oregon Evergreen so prominently before you for twelve years as the money-maker for the market gardener. Read what follows.

A & M Oregon Evergreen

Oregon Evergreen Corn now has the endorsement of every gardener that grows for the Los Angeles market. We are safe to say that any gardener growing this will show to his customers its superiority over all other sweet corn. It is many years since we first offered this new and distinct variety. The demand has grown each year until it is now practically the only variety offered on the Los Angeles market. This excellent sweet corn has made wide progress in popularity during the

Oregon Evergreen

season just past. It leads all other varieties at Portland, Oregon. The peddlers will have no other and one no longer hears the consumer complain about the poor quality of the California sweet corn. The advantages of this corn over all others are its earliness, its large size, rarely less than eight inches long, clear of husk. The grains are full to the tip. The husk is very thick and folds so tightly over the grains that the worm does very little damage, compared with other varieties. It is desired by the peddler and groceryman because of its thick husk, and it can be held over two days before it appears old or wilted. It is very productive, averaging three good ears to every stalk, often bearing five marketable ears. (Pkt. 5c) (1 lb. 30c) postpaid; (10 lbs. \$1.25) (100 lbs. \$10.00) f. o. b. here.

Extra Early Oregon Evergreen This is quite distinct from the A. & M. Oregon Evergreen in earliness and in height of stalk, which is about six feet. It resembles Oregon Evergreen in being as prolific, bearing low on the stalk, three

to five ears fully as large and with long streamers. We recommend it equally with the A. & M. Extra Early Adams, knowing full well that this is a strong statement. Give it a trial and you will agree with us. (Pkt. 5c) (¼ lb. 15c) (½ lb. 25c) (1b. 35c) postpaid; (10 lbs. \$2.00) f. o. b. here.

A & M Early Adams This is a blend between the Eastern Extra Early Adams. The superiority of this strain over the former eastern-grown Adams is shown in its earliness, large size and sweetness. It is nearly as good as the Oregon Evergreen, and is earlier and hardier. It is one of the many good things that originated here. Years ago when frost destroyed about all early vegetables, many gardeners plowed under their Early Adams, thinking it, too, was destroyed, but one large grower near Los Angeles for some reason did not disturb his field, and was surprised to see it revive and produce a good crop, as though undisturbed by frost. This grower was selling corn three weeks earlier than others, and demonstrated that frost will not destroy this variety when quite young. (Pkt. 5c) (1b. 25c) postpaid; (10 lbs. \$1.25) (100 lbs. \$9.00) f. o. b. here.

A & M Large Adams This is the best market variety to plant in August and September for late crop. It will mature in 56 days. (Pkt. 5c) (1b. 25c) prepaid; (10 lbs. \$1.25) f. o. b. here.

A & M Large Adams Makes a Hit in Imperial Valley

When we visited the Valley last spring, we were hailed on every side by the earliness and the excellence of the Mexican Squaw Corn for roasting ears.

Yes, we were impressed with its earliness, but we had tried it here beside our Large Adams, and proved the Adams was earlier, larger and better, so we sent some seed to our good friend and expert trucker, Mr. W. E. Hixson, who in due time sent us a crate of green corn, together with this letter:

"I am shipping by express one dozen of Adams Late corn to show how it did in the hottest season we have here. Would have done better but we were short on water. I think it will do fine here planted early or late, about the middle of August. It sells better here than the Mexican or Squaw Corn."

Golden Bantam Probably the very earliest variety grown. Very sweet, none better for the home garden for first early. (Pkt. 5c) (1b. 35c) prepaid; (10 lbs. \$2.00) f. o. b. here.

Mammoth White Cory This new strain is as early as the original Extra-Early Cory, with ears of larger size, and kernels more compact. Cob and kernel are pure white. (Pkt. 5c) (1b. 30c) prepaid; (10 lbs. \$1.50) f. o. b. here.

A New Corn, Evergreen Gentleman

Country Gentleman hybridized with Stowell's Evergreen. Both the Stowell's Evergreen and the Country Gentleman have long been recognized as the standards of perfection in good sweet corn. With Country Gentleman the favorite for the table, but lacking in size, it was not profitable, therefore not popular with the grower. For many years we have endeavored to produce a larger Country Gentleman Sweet Corn, with the result that we have by hybridizing it with the Stowell's Evergreen, succeeded in getting a sweet corn that is larger than either parent. Each ear has twenty-two straight rows of small, deep grains, with all the sweetness peculiar to the Country Gentleman. It is prolific and meets every requirement so much desired by both the grower and consumer. (Pkt. 5c) (¼ lb. 15c) (½ lb. 25c) (1b. 40c) postpaid; (10 lbs. \$2.50) f. o. b. here.

READ THIS

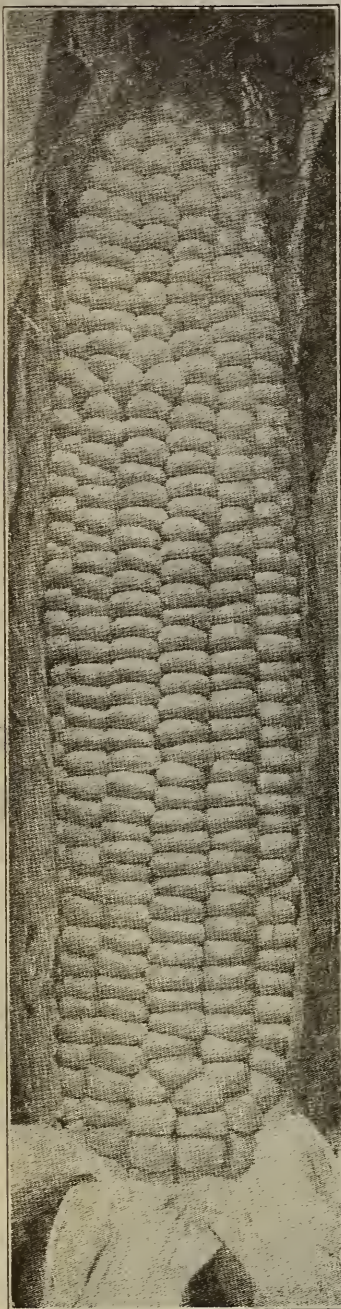
This Catalog comprises a list of all vegetables and farm seeds offered by us, all of which have been tried and proven to be adapted to climatic conditions of the Southwest and Mexico. BUT always have in mind, each season, even each month requires not only different varieties of seed but different strains of the various varieties. For instance New York Special Lettuce is the best of all when planted from August 1st to February 1st, but planted at other times is very inferior while Marblehead and Iceberg Lettuce are best suited to the Summer months. This applies only to the climate of the Southwest. What is true of lettuce will apply also to potatoes, beans, melons, onions and many other vegetables.

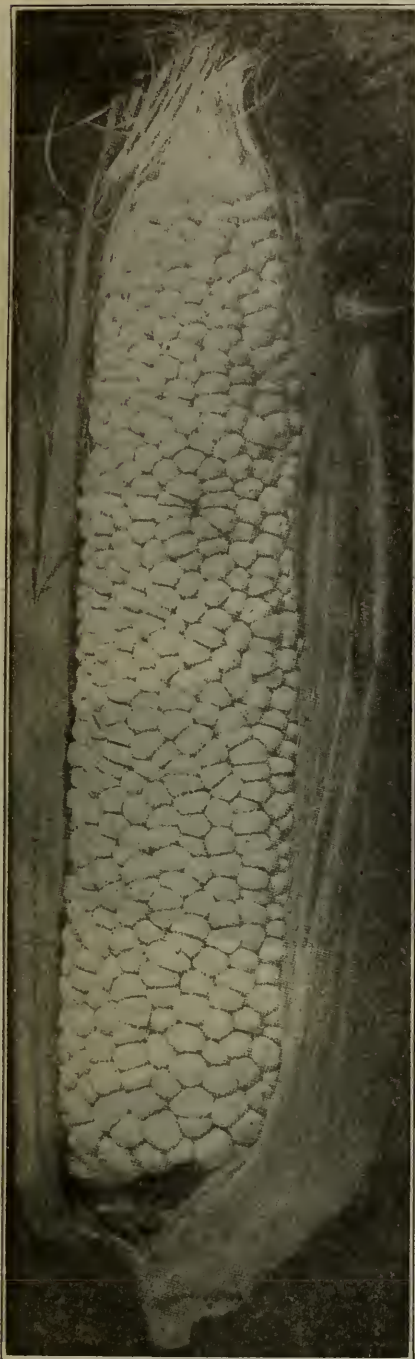
It is our knowledge of these conditions and our eagerness to impart this information through these pages that makes this catalogue more valuable to the gardener and rancher of the Southwest and Mexico than any other.

Read all foot notes; you will sometimes find the information you are looking for.

Do not destroy this catalog; there is too much valuable information in it.

See Field Corn listed on pages with Field Seeds.



Country Gentleman**Country Gentleman**

A delicious sweet corn. The ears are somewhat smaller and less showy than the coarser varieties, but for private family use, where quality is preferred to size, it is excelled only by the Golden Bantam. The cob is very small, giving great depth to the kernels. The great merit of "Country Gentleman" is its fine quality. It matures in ten weeks. (Pkt. 5c) (lb. 25c) prepaid; (10 lbs. .00) f. o. b. here.

Stowell's Evergreen

If planted at the same time with earlier varieties and at intervals of two weeks until July 1st, it will keep the table supplied until November. It is hardy and productive, very tender and sugary, remaining a long time in a fresh condition suitable for cooking. (Pkt. 5c) (lb. 30c) prepaid; (10 lbs. \$1.50) f. o. b. here.

Early Minnesota

An excellent sweet corn of extra early habit. (Pkt. 5c) (lb. 30c) prepaid; (10 lbs. \$1.50) f. o. b. here.

Early Mammoth

Produces the largest ears of any early sort. (Pkt. 5c) (lb. 30c) prepaid; (10 lbs. \$1.50) f. o. b. here.

Late Mammoth

One of the finest varieties for main crop. Good quality, very productive. Desired for the home garden, but the husk is too thin for the market. (Pkt. 5c) (lb. 30c) prepaid; (10 lbs. \$1.50) f. o. b. here.

Black Mexican

One of the best sweet corns for this section. Deliciously sweet and tender and very productive. (Pkt. 5c) (lb. 30c) prepaid; (10 lbs. \$1.50) f. o. b. here.

Papago Something in corn new to us, but, like the Tepary bean, it has long been known to the Papago Indians. We are offering it because it has great merit as a drought-resistant variety growing luxuriantly in arid places where other varieties fail. We offer it as a sweet corn because it is sweeter, much more tender, and better for table use than field corn.

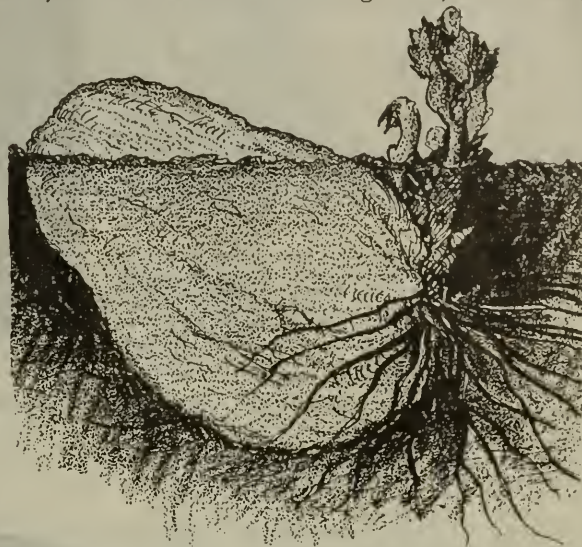
The Department of Agriculture of Arizona discovered this corn with the Papago Indians, and because of its luxuriant growth, were sufficiently interested to station an expert on the ground who in four years bred up the strain of Papago we are now offering you.

We grew a plot of this corn last season beside the Oregon Evergreen, and can state that in the Coast climate on good soil with irrigation, it did not compare in size of stalk or ear or sweetness with the Oregon Evergreen, but is much better than the Squaw Corn. Therefore we are offering it with forceful recommendation from Arizona as a corn of great merit for dry farming and for green fodder and ensilage in arid sections. Thorough and complete experiment in various ways for several years indicate that the Papago corn excels other varieties in yield, size of ear and number of ears per stalk. It is markedly more resistant to the corn ear worm, and somewhat more resistant to smut. It is a late variety and produces large, luxuriant stalks. (Pkt. 5c) (½ lb. 20c) (lb. 35c) postpaid.

A & M Chayote**Cultural Instructions Mailed with Each Order**

The Chayote is no longer an experiment. It has now become an article of commerce. It may be found on sale at every grocery store throughout the season, which lasts from October until March.

The vine is a rampant grower. The first year from seed it will grow twenty to thirty feet. Destroyed to the ground by frost, it soon sends out new growth, and during the

**Chayote as it Should Be Planted**

second season will extend vines forty or fifty feet in every direction. During September it starts blooming, having a small white insignificant flower. Within four weeks the fruit is large enough for the table. One vine in two years if properly trellised will produce more than one thousand fruit.

Cultural Directions One fruit envelopes one seed, which sprouts from the large end. Plant where you intend it shall grow. Cover only the large end, leaving the small end exposed. (See picture.) Or let the fruit lie around until it has well sprouted, and then plant the seed, leaving the sprout well above ground. Water freely and do not be alarmed if frost should destroy it. A new shoot will soon appear. Give it abundance of water throughout the hot summer season.

Because of many complaints of failure to get them started we offer them already rooted. (Per seed 10c) (rooted 15c) f. o. b. here; (Packed and mailed, one seed 25c); (additional seeds 15c each); (rooted and sprouted, one vine packed and mailed 30c); (each additional vine 20c). Postpaid.

Receipts Parboil, chop and casserole with tomato, onion and green peppers.

Fry as egg plant.

Prepare as summer squash.

Use small ones, without peeling, boil until tender, cut in half, put a small lump of butter, a little sugar, salt and pepper on each one. Put in oven a few minutes.

For large ones. Peel and cut into cubes and boil; when done, drain, add butter, and seasoning and fry in pan. Let simmer until butter burns. Just before serving, put tablespoonful of vinegar on them.

Parboil young ones and serve as salad with mayonnaise dressing.

**The Vine-covered Cottage that Yielded \$30.00 Worth of Chayotes**

A & M Cucumbers

Carloads of them grown under muslin.

Just think! 1,000,000 yards of muslin means 900,000 square feet of cold frame, and this is not all. Many acres not under muslin. All Klondike cucumbers planted within an area of a square mile, 350 carloads, shipped to Eastern markets during the months of April and May.

Culture for cold frame—Make the frame 8½ feet wide and as long as is desired, using 12 in. boards. Select a place with good loamy soil on a sunny slope. Mix the soil almost half and half with horse manure. About February 1st sow liberally with seed, in hills three feet apart each way. Stretch wire across the frame across and lengthwise. Sew muslin in widths and lengths to cover frame. Arrange to roll the muslin on a stick as a curtain. Cover each evening, and open each day.

Field culture—Plant from March to October in hills 4 to 6 feet each way, 8 to 10 seeds to a hill. Cover an inch deep. When danger of insects is past, thin out the plants, leaving 5 or 6 of the strongest in each hill. It is ready for the table in six weeks from planting seed. One ounce of seed will plant 50 hills; two pounds to the acre.

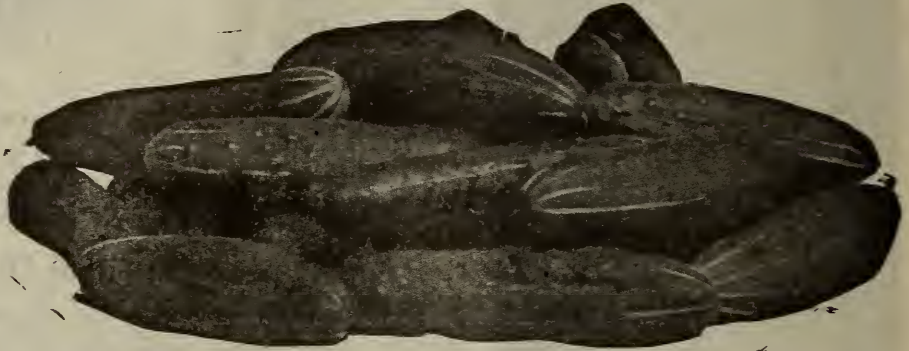
Klondike This cucumber has steadily grown into favor since we first offered it six years ago. It is the one variety that made carload shipments possible because it is firm, dark green color, and stays green until consumed; turns neither white nor yellow with age, but stays green. It is a desirable size, just 7 to 8 inches long, symmetrical in shape, and especially crisp and palatable. It is an excellent variety for pickling when young, as well as desirable for the market. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.

Davis Perfection This is the ideal cucumber. Long slender, dark green, tender and crisp. It is the best all around cucumber yet offered for the family garden, the market garden and the hot house. Do not hesitate to plant this variety, whether you plant a dozen hills or a larger acreage (Pkt. 5c) (oz. 20c) (¼ lb. 60c) (lb. \$1.75) (5 lbs. \$7.50) postpaid.

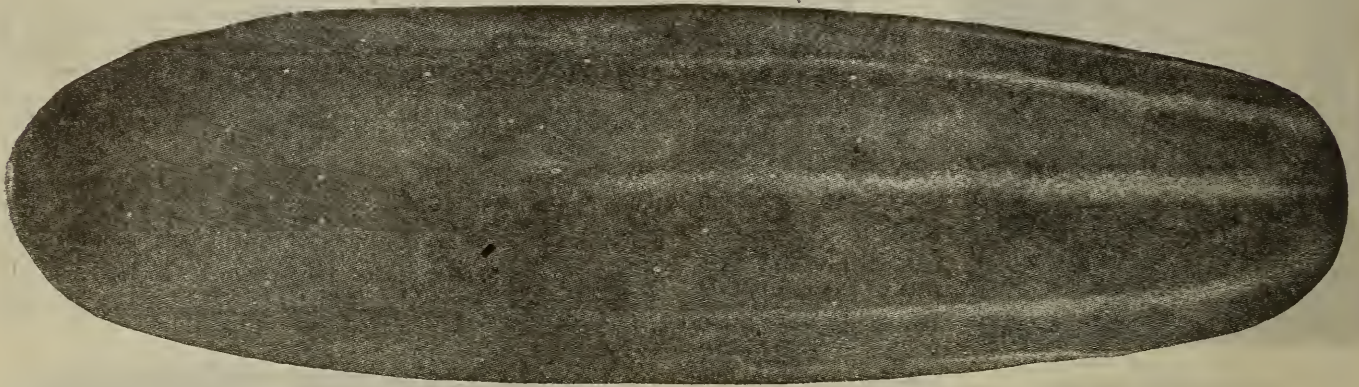


THE PROPER WAY TO GROW CUCUMBERS

Make ridges four feet wide, plant three feet apart on each side of the ridge. Irrigate between the ridges.



Davis Perfection



Klondike

Arlington White Spine This has been a favorite for many years; it is one of the best sorts for early out-door forcing, and always a good table variety. It is very prolific, and excellent for pickling when young. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) postpaid.

Improved Long Green Dark green, firm and crisp; ten to twelve inches long, a favorite with home and market gardeners. Hotel trade like a long cucumber for slicing; this is ideal for such purpose. It is very prolific, and none better for pickling. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) postpaid.

Japanese Climbing Cucumber This variety should be grown more extensively; it is equal to others in quality and can be grown more economically in a small garden by planting near a fence or trellis of any kind, and climbs by tendrils as a grape vine. Whether space is a factor or not, we recommend it. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (postpaid).

We not only test our seeds for vitality, but we grow our leading vegetables to maturity to know they are true to name.



Tons and tons of White Spine grown for us and are now ready for the crusher. This pile is estimated to produce 6,000 pounds of seed.

A & M CUCUMBERS---(Continued)

Our Everbearing Cucumber This variety is entirely distinct from all others on account of its close, bushy growth and everbearing character as shown in our illustration. The first cucumbers are ready very early and the vines continue to flower and produce fruit continually until late in the season, whether the ripe cucumbers are picked off or not, differing in this respect from all other varieties of cucumbers in cultivation. A single vine will show at the same time cucumbers in every stage of growth, the smaller ones being perfect in shape, of a fine green color, just the right size for picking. As they grow larger they are entirely satisfactory as a slicing cucumber.

We recommend this to be planted in home gardens at all times, but especially in September. (Pkt. 5c) (oz. 20c) (¼ lb. 60c) postpaid.



A Single Plant of Our Everbearing Cucumber

Chicago Pickling This is the variety that is being shipped out of Orange County to the Los Angeles pickling factories. Thirty-five carloads were shipped in, and possibly as many more came by auto truck. Our seed has given these growers satisfactory results for years.

This variety is chosen because of its delicious quality and its shape, being one inch thick and three inches long when at pickling size. It is enormously prolific, bearing in clusters. We can recommend it for the home garden, but not for the market gardener, because it turns yellow soon after being taken from the vine. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

Italian Cucumber Always the prize-winner. At the Exhibition in San Francisco had one or more jars of this Italian Cucumber. It is excellent for the table when quite young, and under ten inches long. It frequently grows to thirty inches in length. Sold only in packets, 10c each.



Italian Cucumber

HOW DO THEY DO IT?

- How do they grow 200 sacks of potatoes per acre? See page 54.
 How do they grow three crops a year on same land? See page 30.
 How do they make beautiful homes in six months? See pages 9 and 10.
 How do they have a garden in six months? See pages 11 and 12.
 How do they know what to plant and when to plant it? See inside back cover page.
 How do they know how many plants per acre? See page 62.
 How do they know what to do and how to do it? See page 15.
 How do they know fruits, vegetables, and flowers? Read Wickson's books, page 39.
 How do they always have good gardens? They read this catalog through and through.—Seeds, Insecticides, Fertilizers and Tools. If still in doubt, they write us about it, and we always put them right.



Lemon Cucumber

Lemon Cucumber At last after years of advertising and effort to educate the home-gardener to grow the Lemon Cucumber in preference to the common long green type, we can now say that at least half the people are awake to the superiority of this delicious salad, and the other half will soon regret not having tried it earlier. Every one who has tried it is unanimous in its praise and would not think of omitting it from the spring garden. It is the color of a lemon when ready to use, and similar in shape, being less pointed at the ends.

Plant four or five hills for a family garden. Cultivate same as other cucumbers, water freely and you will have four times as many cucumbers as any other variety will produce.

Mr. Dennis, of Orange County, found eager buyers at the Long Beach city market, and easily sold his entire crop.

Mrs. Morse, of Arizona, writes that she sold three dollars' worth of cucumbers grown from ten cents worth of seed, besides using all they wanted.

W. R. Thomas writes: "I bought Lemon Cucumbers from you three years ago. I like them better than any other kind. Every one to whom I have given some praised them highly."

There is nothing but praise for the Lemon Cucumber.

Gherkin This cucumber is used only when pickled, but it is the most delicious of all the cucumber family when properly pickled. It should be more extensively grown. Planted where it may climb on a trellis, one vine will cover a section of fence eight feet high and twelve feet wide, producing possibly a thousand or more of the delicious and oddly shaped gherkins. It should be planted to shade a window or back porch. Sold only in packets at 5c each.



SMALL GHERKIN.

A Word About Cucumbers

Planted from September 1st to 15th, in a sheltered place, will produce delicious cucumbers all through December and late into January. This has been done frequently, but so much depends upon the changeable climatic conditions each season that there is always a risk of failure, but it is worth a trial because the expense is small compared with the profit if you succeed. Six hundred dollars from one acre of cucumbers during the month of December is easily possible.

To prolong the vitality of your vines, pick all of marketable size every other day, and do not tread upon the vines when picking. To grow prize cucumbers, mix a handful of Fertilizer with the soil about the hill when planting, and more as the vine grows.

PLANT A HOME GARDEN NOW

Vegetables from the home garden are always the best. No market vegetables ever have the sweetness or flavor of those just gathered from your own back yard garden. You don't need to plant lots of seed; from a few feet of ground a supply of vegetables for a family can be grown. A back yard containing a small, well-cultivated vegetable garden is an ornament to a neighborhood. Be sure to plant a vegetable garden this spring.

THE BACK-YARD ASSET

The London Times is authority for the information that workmen of Belfast, who cultivated their garden plots in their spare time during the past year, added \$520,000 worth of vegetables to the supply of the city food and aided materially in keeping down the high cost of living. The cultivation of back yards in California would go far to relieve the cost-of-food situation which is proving such a problem to the housewife. And our climate is much more responsive than the Irish climate, vegetables maturing much earlier here than elsewhere. It has been proved possible again and again in this vicinity to keep a family of five provided with fresh vegetables the year around on an ordinary city lot. It only requires real interest and reasonable attention.

An amateur may at once become an expert with the aid of this catalog and A. & M. Seeds.

A & M Chicory

Large Rooted

The roots, dug in the fall, dried, cut in thin slices, and ground, are used largely as a substitute for coffee. Seed should be sown quite thinly in shallow drills early in the spring. When well started, thin out to stand two or three inches apart in the row, and give good cultivation all summer. (Pkt. 5c) (oz. 10c) (¼ lb. 40c) (lb. \$1.25) postpaid.

Witloof Chicory

Sow the seed in deeply prepared ground during June, July and August. Thin out to eight inches apart in rows twelve inches apart. In the fall take up the roots and store them in a manner that will preserve them in good shape for a month or longer. This can be done by burying them in sand. In December make trenches ten inches deep and twelve or fifteen inches wide, and loosen the soil for ten or twelve inches deeper. Set the roots three inches apart in rows six inches apart, within the trench, so the tops of the roots are eight inches below the top of the trench. Then fill with sand, water thoroughly and cover with manure. In two to four weeks tender heads will form and be ready to use as a salad with French dressing.

This is a most delicious salad, and many Eastern growers are making a specialty of it, selling to hotels at fancy prices. We suggest it to our many mushroom growers, believing it will go nicely hand-in-hand with the growing and marketing of mushrooms. (Pkt. 10c) (oz. 20c) (¼ lb. 60c) (½ lb. \$1.25) (lb. \$1.75) postpaid.



WITLOOF CHICORY.

A & M Collards

The Collard is an old-time favorite, adapted to all parts of the South, and as a producer of "greens" for boiling in winter and spring it has no equal. It will pay you to have a collard patch just to feed the chickens.

Southern Georgia This variety is the old-time favorite. Stands all sorts of adverse conditions without injury. Is very hardy. In many places where the soil is too poor to grow cabbage, the collard grows easily and makes a good substitute for cabbage. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (lb. \$1.00) postpaid.

A & M Cress

Pepper Grass Sow curled or pepper grass thickly, in shallow drills, every two or three weeks. It should be cut often, and will continue to grow. It is used not only for salad, but on the breakfast table and for garnishing. Used with lettuce its pungency adds an agreeable flavor. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) postpaid.

True Water Cress Should be sown in damp soil or if a stream of water can be utilized, it would be much better. It will also thrive well in damp cold frames. Rightly managed, its culture is very profitable. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00) (lb. \$3.50) postpaid.

A & M Corn Salad

Culture—Sow any time from Oct. 1st until February. Plant and cultivate the same as lettuce. It is hardy in this climate. It is used for garnishing in the same manner as parsley or cress. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (lb. 75c) postpaid.

A & M Dandelion

Sow early in spring, in very warm, rich soil, in drills eighteen inches apart; thin to five inches apart and cultivate well; they will be fit for cutting the next spring. When grown for the roots, sow in September and cultivate well during the fall and the following summer; the roots will be fit to dig in October.

Improved Thick Leaved Unsurpassed in thickness of leaf and deep green color. It is compact and forms an upright regular tuft at the center. This cabbageing sort is much superior to the common or uncultivated dandelion. (Pkt. 5c) (oz. 50c) (2 oz. 85c) (¼ lb. \$1.40) postpaid.

A & M Egg Plant

Culture—The seed should be sown in a hot-bed during December or January; it is slow to germinate and requires warm and even temperature. The plants should be ready to set out by April 1st, and may be planted as late as August 1st. Plant eighteen inches apart. Keep well watered, and pick closely as soon as large enough. In very warm protected spots they will survive the winter. Even if the foliage is destroyed sprouts may appear the following spring from the stem beneath the soil and mature marketable fruit the following May. Egg Plants require four to six months to mature. One-fourth pound of seed is sufficient to plant an acre.

Plants—New York Spineless, from April 1st to Sept. 1st, per dozen 75c; per hundred, \$4.00 postpaid.

Black Beauty Is preferred by growers for the early market because it matures marketable sized fruit earlier than any other variety, and because the fruit is dark colored, when quite young and uniformly over the entire surface. It is entirely free from spines. It is popular because it is a money-getter. (Pkt. 10c) (oz. 60c) (¼ lb. \$2.00) (½ lb. \$3.50) (lb. \$6.00) postpaid.

New York Improved This variety has superseded all others, both for market and home use. The large size and high quality of its fruit and its extreme productiveness make it the most profitable for the market gardener. It is spineless, which is a great advantage in shipping. (Pkt. 10c) (oz. 50c) (¼ lb. \$1.65) (½ lb. \$2.75) (lb. \$5.00) postpaid.



New York Improved Spineless Egg Plant

The Tree Egg Plant



Tree Egg Plant

This variety is of medium size and extremely good shape, being particularly adapted to slicing, as there is no waste of material. It resists drought and bad weather to a wonderful degree, partly on account of its strong, upright growth. It bears its fruit sometimes one or two feet above the ground, thus escaping liability to rot. It is very satisfactory for the home garden. (Pkt. 10c) (oz. 50c) (¼ lb. \$1.65) (½ lb. \$2.75) (lb. \$5.00) postpaid.

Notice—Although frost may destroy the plant to the ground, it will sprout again from below the surface of the ground and produce an early crop the second season. Do not destroy your field because it has been frosted.

A & M Endive

Culture—Same as for lettuce. Seed may be sown any time during the year. When plants are well started, thin out to ten inches apart, or they may be transplanted. When plants have reached a good size, gather the leaves closely together and tie loosely in an upright bunch. This blanches the inner leaves in about ten days and adds to the crispness as a salad, as it renders the flavor mild and delicate. One ounce will sow 400 feet of row.



Green Curled Endive

This plant furnishes an attractive and appetizing salad for the fall and winter months, or by repeated sowings a supply may be had nearly all the year round.

Green Curled Leaves are finely cut or lacinated, giving the plant a rich, mossy appearance, which is greatly enhanced when the centers are nicely blanched.

This is the variety generally preferred because it blanches to a beautiful golden yellow. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (lb. \$1.25) postpaid.

White Curled This beautiful variety does not need blanching to prepare it for use, the midribs being naturally of a pale golden yellow, the finely cut and curled leaves are almost white. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) postpaid.

Batavian or Escarol Forms large heads of broad, thick leaves, which can be blanched for a salad or it will make excellent cooked greens, as well as being useful to flavor soups, stews, etc. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (lb. \$1.25) postpaid.

A & M Gourds



Dish Rag Gourd

Culture—Gourds are tender annuals, of trailing or climbing habit. The seed should not be planted until the ground is warm. Plant in hills and cultivate as cucumbers. Leave only three or four plants in a hill, and allow the vines to ramble or train over a trellis and for shading windows.

Dish Rag Gourd The peculiar lining of this valuable gourd gives it its name. The fruit grows about two feet long. The interior fibre is serviceable for a variety of household purposes, being used as a dish cloth, or sponge. The fibre is tough, elastic and durable. (Pkt. 10c).

Orange or Mock Orange A good old sort, the fruit often finding its way into the family sewing basket. A beautiful and rapid climber, quickly covering trellises. (Pkt. 5c) (oz. 15c).

Dipper A well known and useful gourd. When grown on the ground the stem is much curved; but on a trellis the weight of the fruit makes the stem straight. This gourd is very much in demand. (Pkt. 10c)

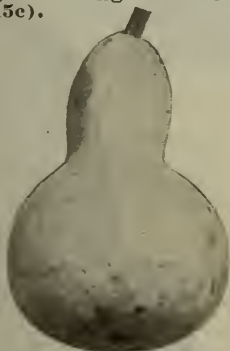
Nest Egg Pkt. 5c.

Ornamental Small, odd shapes and colors. Pkt. 10c.

Mixed Gourds Pkt. 5c.

Sugar Trough Large bowl shaped; used extensively by the native Hawaiians for culinary purposes. Pkt. 10c.

South African Pipe Gourd When not trellised they grow with a uniform curved neck forming a pipe shaped gourd that colors like a meerschauum and is as useful. Pkt. 10c.



Bottle Gourd

A & M Herbs

Herbs in general, delight in a rich, mellow soil. Sow the seed any time throughout the year, in shallow drills one foot apart; cover lightly with fine soil, and when up a few inches, thin out to proper distances apart, or transplant into prepared beds. Care should be taken to harvest properly; do this on a dry day, just before they come into full blossom. Dry quickly in the shade, pack closely in bottles or dry boxes to exclude the air; this will insure their being preserved in good condition for future use. Varieties in the list marked * are perennials.

Other Leading Varieties

	Pkt.	Oz.		Pkt.	Oz.
Anise	5c	10c	*Lavender, Sweet..	5c.	20c
Balm	5c	10c	*Peppermint	10c	...
Borage	5c	10c	*Rosemary	5c	25c
Burnet	5c	10c	*Sage	5c	10c
*Caraway, lb. 50c	5c	10c	Saffron	5c	10c
*Catnip or Catmint	5c	10c	Summer Savory..	5c	10c
Chervil	5c	10c	Sweet Marjoram..	5c	15c
Coriander, lb. 50c	5c	10c	Sweet Basil	5c	10c
Dandelion	5c	10c	*Thyme	5c	50c
Dill	5c	10c	*Winter Savory...	5c	15c
*Fennel, Sweet ...	5c	10c	*Wormwood	5c	...

The supply of Culinary plants and herbs has not held up with the demand. There is room for a specialist in this line. See wholesale druggist and butcher supply dealers.

Devote a small plot in your garden to the growing of herbs. They add to the taste of things what daintiness adds to the looks of things, and many of them may be enjoyed all the year round.

Then, too, many of them are very healthful.

A & M Kale



Tall Kale

Culture—Seed should be sown thinly, in drills about the middle of June for the tall sorts; transplant the young plants twelve inches apart in rows three feet apart. Later in the season the dwarf sorts may be sown rather thickly in drills to furnish small heads to be cooked like spinach. One ounce to 100 feet of drill.

Dwarf German Kale

German Green or Sprouts. The leaves are curly, bright green, very tender and delicate flavor. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Tall Scotch

This makes a beautiful plant, about two-and-a-half feet tall. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Jersey Kale A tall variety with smooth leaves. Especially used for poultry greens. (Pkt. 5c) (oz. 10c)

(¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Thousand Headed Kale Excellent for the table and for poultry green. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

A & M Kohl Rabi

Culture—Seed may be sown every month in the year. Drill on ridges same as beets. (See page 12). Thin to three inches apart. An ounce of seed will produce 2,000 plants.

Early White Vienna

The earliest sort, very tender, excellent for table use. (Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.00) (lb. \$2.00) postpaid.

Early Purple Vienna

Similar to above, but has flesh of purple color. (Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.00) (lb. \$2.00) postpaid.

A & M Leek We believe in having the best of everything. With this idea always before us, we have secured this fancy strain of leek. It is large, white, tender and mild—the best in the world. Its mild, delicate flavor makes a delightful addition to lettuce salad. (Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.25) (lb. \$2.00) postpaid.



Kohl Rabi

A & M Lettuce

See Pages 4 and 12

Although some smooth leaved varieties like the Big Boston and California Cream Butter do very well here, the main varieties and the best are the Iceberg for all seasons, the Los Angeles Market for the winter season only. This variety should be planted only from August 1st to February 1st. The Iceberg and other varieties may be planted all the year round. The Romaine is a good lettuce to grow in a small garden. It is the best variety to eat before heading. The Iceberg is the best summer variety.

Prepare the soil in ridges fifteen inches apart as shown on page 12. Sow the seed thinly on each side of the ridge. Thin out to ten inches apart. Transplant the discarded plants in any vacant spot about the garden. Lettuce wants a sandy loam, rich in humus, and an abundance of water. It requires about four months to mature.

Los Angeles Market One of Aggeler & Musser Seed Co.'s Big Money-makers. This is one of the many vegetables introduced by us which have become of great value to the growers of Southern California. Like the Pearl Cauliflower, Winnigstadt Cabbage, and Golden Self Blanching Celery, thousands of carloads of this lettuce are being shipped from Southern California, Phoenix, Ariz., and many carloads from Southern Texas. This is surprising when only a few years ago we were requested by one shipper to get a lettuce that would stand shipping better than the smooth leaved varieties. We experimented with a curled variety and developed this hard headed type that weighs more than two pounds per head. We shipped the first crate to a friend near Philadelphia, Pa. It arrived in perfect condition and kept good on ice for a period of three weeks, until consumed. We then introduced this as the Los Angeles Market lettuce. It at once created a sensation with the growers, and later with the shippers, when they learned it would carry to the far east as well as cabbage. It is now shipped more extensively than any other vegetable.

This Los Angeles Market lettuce was rapidly offered by other seedsmen in other parts under other names, such as Wonderful and New York, but as it was introduced from here and grows to perfection around Los Angeles during the winter months, the name Los Angeles Lettuce is aptly applied to it by dealers and consumers everywhere in the United States. (Pkt. 5c) (oz. 20c) (¼ lb. 70c) (½ lb. \$1.10) (lb. \$2.00) postpaid.

A Los Angeles shipper is authority for the statement that he sent a carload of Los Angeles Market Lettuce to a customer in an Eastern city, who upon arrival of the car opened it for inspection. He gave one look at the contents of the car and with great disappointment he closed the car door and wired the shipper that he ordered Lettuce, not Cabbage. He was a pleased customer when convinced it was really lettuce.

Iceberg This is next to Los Angeles Market as the leading variety for the Southwest during the summer months. Of course it is better during the winter months, but not so solid as the Los Angeles Market, which is strictly a winter variety, while the Iceberg is a good all-season lettuce, and hundreds of carloads of Iceberg are being shipped when the other is not available. Iceberg lettuce planted later than March 1st should be grown on dark, heavy soil, because if grown on light, sandy soil the heat of the sun reflected from the sand on the under side of the leaves causes them to burn almost to the heart.

The light green, curled, red-tinged leaves of the Iceberg, form heads as large as the Los Angeles Market, but not so solid, but it is as tender and crisp, and is of excellent flavor. (Pkt. 5c) (oz. 20c) (¼ lb. 60c) (½ lb. \$1.00) (lb. \$1.75) (5 lbs. \$8.00) postpaid.

Marblehead A lettuce of great favor in the East because of its delightful flavor, and because it there grows to perfection from early spring until late fall. For the Southwest it is our best summer lettuce, but like all other varieties with us, it attains its perfection during our winter months. Plant all the year round. (Pkt. 5c) (oz. 15c) (¼ lb. 60c) (½ lb. \$1.00) (lb. \$1.75) postpaid.

Early Curled Simpson This is a very popular variety as a loose leaf lettuce. The leaves are large, thin, very tender and of very good quality. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

Hanson Similar to the Iceberg, without the tinge of red. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.

California Cream Butter This lettuce is similar to the Big Boston. Is a good shipping variety. One gardener sold from one-half acre of this lettuce nearly three hundreds dollars worth. It is of good flavor and beautiful in appearance. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

Tennis Ball Similar to the California Cream Butter, except in size and without the tinge of red. It forms a solid head and is best for early spring. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

Jas. J. Wyly, Tex.

"In 1914 I planted some of your New York Special lettuce, and the heads were so large a great many people thought it was cabbage. One crate containing 18 heads weighed 45 pounds."

W. H. Cornish, Carmel, N. Y.

"The Marblehead lettuce I got from you last year was the best summer lettuce I ever raised."



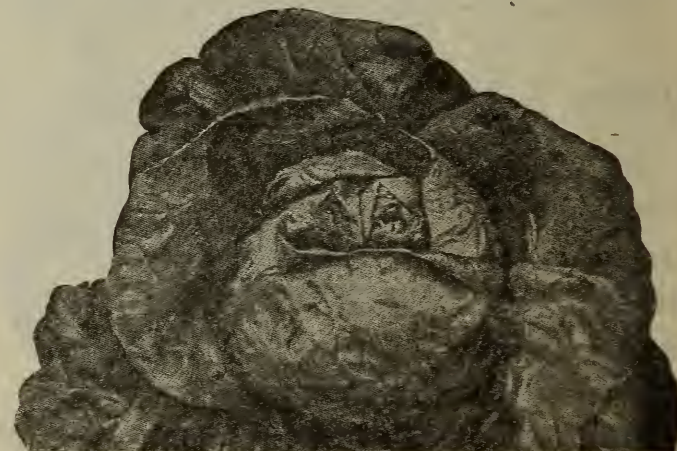
Big Boston

Big Boston Very large, smooth-leaved, solid-heading variety; grown more extensively throughout the east and south than any other. It is congenial to all climates, and while a fairly good shipper, it cannot compare in this respect with the solid-heading New York Special variety, but in flavor it probably excels all others. An excellent all year round lettuce. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.



Paris White Cos

Paris White Cos Upright, crisp and tender. Cos lettuce is becoming deservedly popular, and should receive more attention from market gardeners. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.



California Cream Butter

Important Information on Culture

A good rule for planting and irrigating melons, squash, pumpkins, cucumbers and tomato plants.

The soil must be thoroughly soaked two or three feet deep, either by rain or irrigation. When dry enough spade or plow ten or twelve inches deep. Thoroughly pulverize the soil. Make furrows eight or ten inches deep.

Plant the seed in the furrow at regular distances apart, four feet for cucumbers and bush squash, six feet for muskmelons, eight feet for casabas, and ten feet for watermelons, pumpkins and vining squash.

As the plant grows gather the soil around it until the roots are twelve inches or more below the surface. Thin out all surplus plants as soon as they are hardy and well established. The rows are now straight and an equal distance apart. This makes it easy to cultivate close to the hills, both lengthwise and crosswise. Cultivate deeply as long as there is no danger of disturbing the roots. Be always mindful that the roots are as long as the vine, therefore, when working close to the hills and among the vines, let the hoeing or cultivating be shallow.

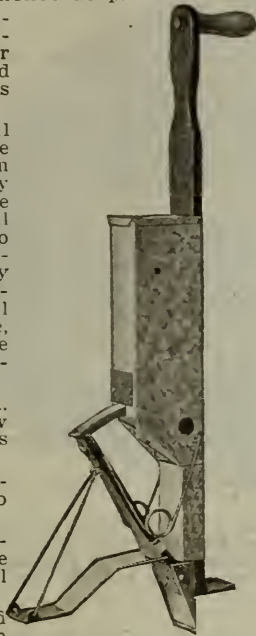
Do not irrigate close about the hill. Always make the irrigation furrow nearly as far from the hill as the tips of the vines.

Always cultivate the irrigation furrow as soon as it is dry enough to mulch nicely.

Heavy soil or loam requires less frequent irrigation than sandy soil. The term irrigation means soaking the soil thoroughly, not lightly.

If this rule is intelligently adhered to your vines will never suffer from drouth, or root blight, and will be healthier in every way, because the roots are deep down in the cool, moist earth unaffected by the heat of the sun. This is the secret of success with all midsummer planting.

This method also applies to the transplanting of tomatoes.



Segment Corn Planter. All large melon growers are now using the Segment Corn Planter—it does the work better. Price \$1.50 f. o. b. here. Wt. 5 lbs.

FOR ALL KINDS OF MELONS

Common Sense Talk About Protection Against Insects

There is just one sure remedy. Don't wait until you discover the little cucumber beetle at work and having destroyed half your field, and then wire to your dealer to send something,—just anything to destroy the beetle and save your vines; then spend days spraying and replanting to repair what damage has been done. You never can regain the time lost,—the time that is so valuable to the early planter.

At the time you plant your seed, have pieces of wire 18 inches long cut from baling wire and pieces of cheese cloth 18 inches square,—that is, four pieces to the square yard. Arch the wires at right angles over the seed, and make a tent with the cloth over the wires, covering the edges with earth. Then don't worry until the plants crowd the tent, after which remove the cloth but do not thin out the plants until after several days when they have become hardened by exposure. This method will cost about \$10.00 per acre, and less time than it requires to combat the beetle, but you save your plants. The cloth may be used several seasons.

Next to the above method is to spray the vines with Paris Green, using one heaping tablespoonful to four gallons of water and keep it well stirred, which is very important.

FOR THE CUTWORM—Use Cut Worm Killer, or mix Paris Green with bran and spread a circle around the plant.

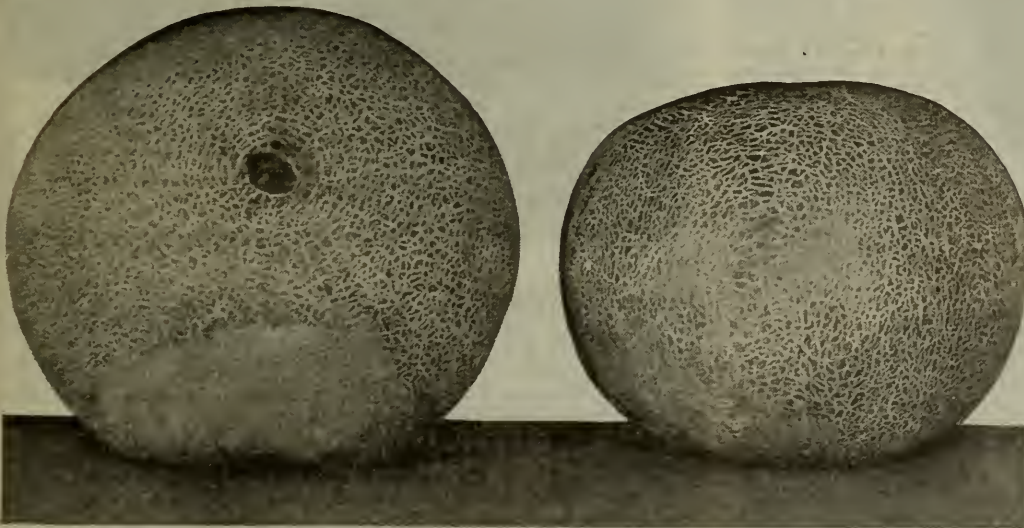
FOR APHIS—First keep the vines hardy by deep planting and proper cultivation, irrigation and fertilizers. Then if the aphid appears, which is unlikely, spray with Black Leaf 40, or bury the affected part with dust. Either way is a constant fight. Lady bugs in some instances are doing the work satisfactorily.

FOR MELON BLIGHT that is caused by a fungus at the root, spray the hill freely with Bordeaux so that the liquid will follow the stem several inches beneath the surface. This should be done as a precaution rather than as a remedy.

One grower reported to us that the melon wilt was destroying his vines. We advised him to apply a cup of Bordeaux to the stem of the plant at the surface of the ground, and soak it in until it was thoroughly applied. This is to destroy any fungus that may exist there. He did so and reported that it saved his field and some of the vines seem to have grown six inches during the first night. Try it.

READ THIS. If you would prolong the life of your vines, make a path between the rows by training the vines to grow along the rows, and not across from one row to the other. Then at picking time do not allow the pickers to tread upon the vines. To do so makes many culls and shortens the life of the vines and lessens your profit about one-third.

A & M True Armenian (or Persian)



True Armenian

THREE MOST VALUABLE BOOKS FOR CALIFORNIA

By Edward J. Wickson, A. M.

Professor of Horticulture in the University of California; Editor of the Pacific Rural Press; Member of the National Council of Horticulture, etc.

The California Fruits and How To Grow Them
Price \$3.00; postpaid to Pacific Coast, \$3.15

The California Vegetables in Garden and Field
Price \$2.00; postpaid to Pacific Coast, \$2.15

California Garden-Flowers, Shrubs, Trees and Vines
Price \$1.50; postpaid to Pacific Coast, \$1.60

These three books are standard and authentic works on these subjects of fruit growing, vegetable raising, and general flower gardening about the home. Written by one who knows California conditions thoroughly. Other books are listed on page 14.

Rule's Choice

This is but another strain of the Persian melon. It has for more than five years maintained its excellent flavor without interbreeding with the Turkish Pomegranate, which is considered necessary. Mr. E. D. Hall, Mr. A. Bergman, and many other growers say, "there is nothing equal to it." (Pkt. 10c) (oz. 30c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.00) postpaid.



Rule's Choice

It is here to stay. It is a distinct type of melon just as distinct as the canteloupe or casaba. We unwittingly introduced a few years ago a melon of the Armenian type under the name of Rule's Choice. It at once created a sensation because of its excellent yet distinct flavor. We now offer the genuine Armenian Muskmelon.

Our seeds have been grown for us under our supervision, and the fields show absolute purity. The grower who plants this melon should not do so to the exclusion of the canteloupe or casaba, but plant all three. It is in a class by itself. (Pkt. 10c) (oz. 30c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.00) postpaid.

A & M Casabas

See Back Cover Page

(If interested write for our Casaba circular.)

Culture, see page 39.

The casaba can be grown successfully throughout the Southwest.

Mr. John H. Nusbaum, of El Paso, Tex., writes: "I had good success and ready sale for the Golden Beauty, Santa Claus, Improved Hybrid and Winter Pineapple."

The casaba is now at full zenith of popularity. Previously it was grown as a late melon to mature after the cantaloupe season. As a late melon its popularity was confined to a limited section near the Coast of Southern California. But it is now demonstrated that it can be grown in all semi-arid sections side by side with the early cantaloupes and watermelons. The carloads of large perfect casabas of the Winter Pineapple, Golden Beauty and Improved Hybrids, types that were shipped from the Imperial Valley during the past two seasons, have proven the value of the casaba as an early melon and good shipper equal to the watermelon and cantaloupe. Casabas are shipped to Los Angeles and San Francisco without crating, as are watermelons.

Our prophecy made years ago is now fully realized. We then stated that casabas would be shipped to Eastern markets in carloads, becoming one of California's many commercial products of great value. Imperial and Los Angeles counties are most conspicuous as shipping centers. More than one thousand carloads were shipped from these points last season.

Grown in the Imperial Valley with early cantaloupes and watermelons, shipped without crating in the same car, it appears on the market the latter part of June and commands a much higher price per pound than watermelons. It at once finds as ready sale as other melons, and continues in unabated demand until after the New Year, when all other melons have long since disappeared from the market.

Cultivate the same as muskmelons. Plant according to your locality, from February 15th until July 15th; for late shipping June 1st to July 15th seems to be the best time for planting.

Casabas may be taken from the vine as soon as they lose the green luster, but should not be eaten until the hard rind of the Pineapple and Golden Beauty will give slightly under pressure but the Hybrid is not at its best until the thumb can make an impression as in a mellow apple.

The best way to keep the casaba late into the fall is to gather them together on the hill and cover them completely with the vines, but do not pick them off the vine.

Golden Hybrid See back cover page. This is an entirely new strain of the popular Hybrid, differing only in its color, which is as yellow as the **Golden Beauty**, and will prove a better shipper than the **Hybrid**. Just as the **Golden Beauty** superseded the green **Winter Pineapple**, so will the **Golden Hybrid** supersede the **Hybrid**. The flavor is equal to that of the Improved Hybrid. It is sure to be a very popular seller, and a **BIG MONEY MAKER**. (Pkt. 10c) (oz. 40c) (¼ lb. \$1.25) (½ lb. \$2.00) (lb. \$3.50) postpaid.



The Prince of All Casabas
introduced by us in 1902

Improved Hybrid

The melon that made Los Angeles famous. This melon is now grown as extensively for a mid-summer crop as the muskmelon, and finds as ready sale. It originated locally, and is as distinctly a Los Angeles product as is the Los Angeles Market Lettuce. Both have made Los Angeles famous. The local and traveling public are now fully awake to the delicious flavor of this casaba. For the home garden



Hybrid Casaba
planted 20
feet apart
Grown without irrigation

or for the market plant the Prince of All Casabas. (Pkt. 10c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.10) (lb. \$2.50) postpaid.

A & M Hybrid

This is a cross between the Winter Pineapple and the Montreal Muskmelon. It grows to a very large size and is of delicious flavor. It is a rampant grower and yields enormously; as many as seventeen large melons were taken from one vine. It is profitable, early and late. Plant from March 1st until July 15th. (Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.10) (lb. \$2.00) prepaid.



Note Small Seed Cavity

Golden Beauty Introduced by us in 1905, it at once became popular locally. It is now grown more extensively throughout California than any other casaba because of its beautiful appearance, excellent shipping qualities, and delicious flavor. It is the casaba that California, as well as adding a million dollars to the wealth of the state each year. (Pkt. 5c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.35) (lb. \$2.50) postpaid.

Jenny Lind This beautiful casaba originated with Mr. J. S. Oestergard of Burbank. He hybridized the Winter Pineapple Casaba with the Jenny Lind Muskmelon. After several years of selection he pronounced this one a perfect blend. It is remarkably uniform in color, shape, and general appearance. It is very sweet, with a flavor decidedly like the Jenny Lind Muskmelon. It is a good casaba for local markets. The color indicates when it may be eaten. (Pkt. 10c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.35) (lb. \$2.50) prepaid.

Winter Pineapple This is the first of casabas introduced into America. We have carefully maintained the purity of type so that it is now just as distinct as when introduced nearly forty years ago. This and the Golden Beauty are identical in all except color, which when mature is light green. The Winter Pineapple is more profitable as a late melon, therefore we recommend to growers near the Coast that it be planted during June. Our type of Winter Pineapple is round, selected for its good shipping qualities. (Pkt. 5c) (oz. 25c) (¼ lb. 65c) (½ lb. \$1.10) (lb. \$2.00) prepaid.

BIG MONEY MAKERS WE HAVE INTRODUCED. (See Pages 3-7)

We are proud of the casabas we have not only introduced but have propagated many of them. The latest is the **Golden Hybrid**, which we offer this season for the first time. (See back cover.)

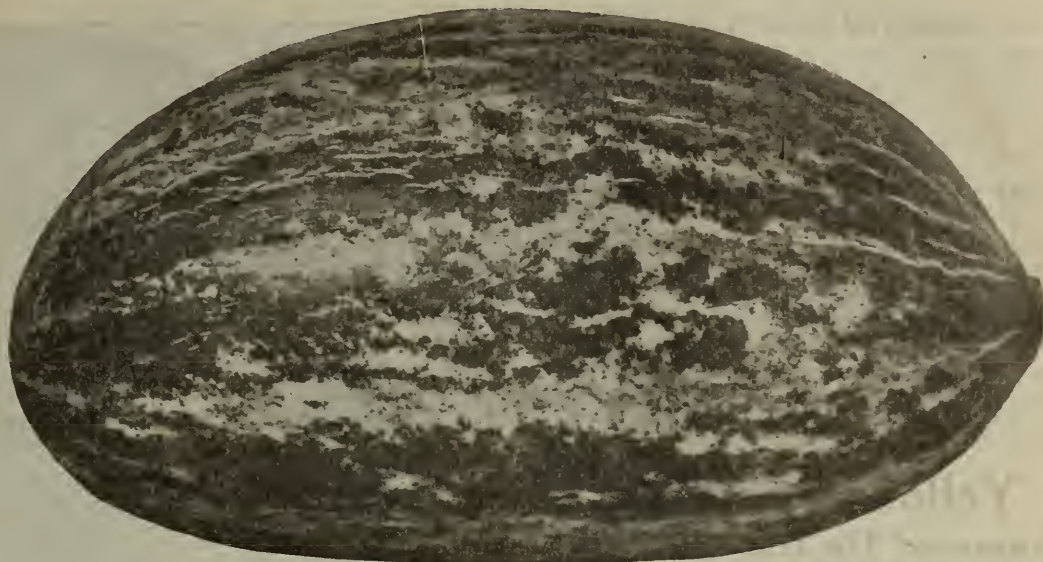
A & M CASABAS---(Continued)

A & M Santa Claus

The name is appropriate to the melon. It is a delightful present to send to your Eastern friends at Christmas. It is of delicious flavor, beautiful in its mottled gold and black coloring, and readily keeps until January. We advise that it be grown more extensively for the local trade. The supply has not been equal to the demand for several years. (Pkt. 5c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.35) (lb. \$2.50) prepaid.

White African Large, cream-colored, hard rind, green flesh, excellent flavor and good shipper. It is a great favorite in Southern France, where it is grown in every home garden and stored in cellars until eaten. When wanted it is placed at a sunny window for a few days. It then becomes ripe and of delicious flavor. Why not do so here? Try it. (Pkt. 5c) (oz. 30c) (¼ lb. 80c) (lb. \$3.00) prepaid.

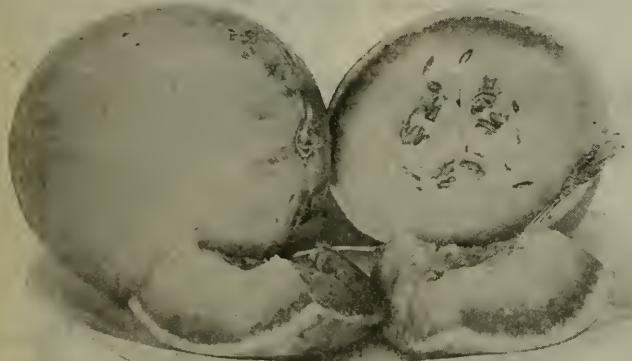
A. W. Pollock, of Loma Linda, writes: "The Improved Hybrid is surely the Prince of All Casabas. I never ate anything like it. Every one that tried it at my home went into raptures over it."



Santa Claus

Honey Dew

The melon with an appropriate name



Early last year the following announcement appeared as a news item in the Los Angeles daily papers:

NEW MELON TO BE SET IN CALIFORNIA SOIL

A new member of the melon family, propagated after seven years of experimenting, is being introduced to California soil by a representative of large melon shippers of Chicago. The new fruit which is called the Honey Dew melon, is a cross between the Rocky Ford cantaloupe and a South Sea Island fruit. One hundred and fifty acres will be planted to the delicacy in this state to determine whether the soil is conducive to its growth.

Well, it certainly was conducive to its flavor, which did Rockyford Melons. See next page.

Golden Honey Casaba

This is quite distinct from the other casabas, and you will believe it has some special merit not possessed by the others or we would not offer it. Its great merit is its good keeping, good shipping, good looking and good tasting qualities. It is round as a cannon ball, size of a cocoanut, yellow as an orange, hard and solid as a base ball. May be shipped to New York in November and served for breakfast on Washington's birthday to the delight of the consumer.



Golden Honey

Size 6 inches in diameter. Wt. 4 lbs.

Owing to the limited supply of seed we can offer it only in quantities not to exceed one ounce. (Pkt. 10c) (oz. 50c) postpaid.

not belie its name. The picture is typical of its shape; the average size is about as large as a cocoanut, but the smaller sized melons are not inferior in flavor. Every melon is a good one. Flesh is light green and sweet as honey. The rind is light green or silvery-gray in color, smooth as an egg and hard as the rind of a winter squash. It is therefore a good shipper, and unlike the casaba, it is good right off the vine, and will keep good for months. This is in its favor for shipping.

The Honey Dew at once became popular in the Eastern market, and importers wired to our local shippers for this melon, only to be disappointed. The writer was present when one of our prominent shippers was earnestly urging some melon growers to plant largely of the Honey Dew melon, saying it would put the Rocky Ford cantaloupe out of business, because it is better in New York than when it leaves the patch in California, and every melon a good one.

As a local melon, it advertises itself. The first one eaten creates a desire for more. The peddler will soon discover his customers are asking for it. He must have it.

Plant it in your home garden. It will afford you more pleasure than any other vegetable you have. But don't plant it near cucumbers or casabas.

(Pkt. 10c) (oz. 50c) (¼ lb. \$1.75) (½ lb. \$3.00) (lb. \$5.00) postpaid.

Our Gold-lined Netted Rock is the best strain of all the Rockyford Melons. See next page.

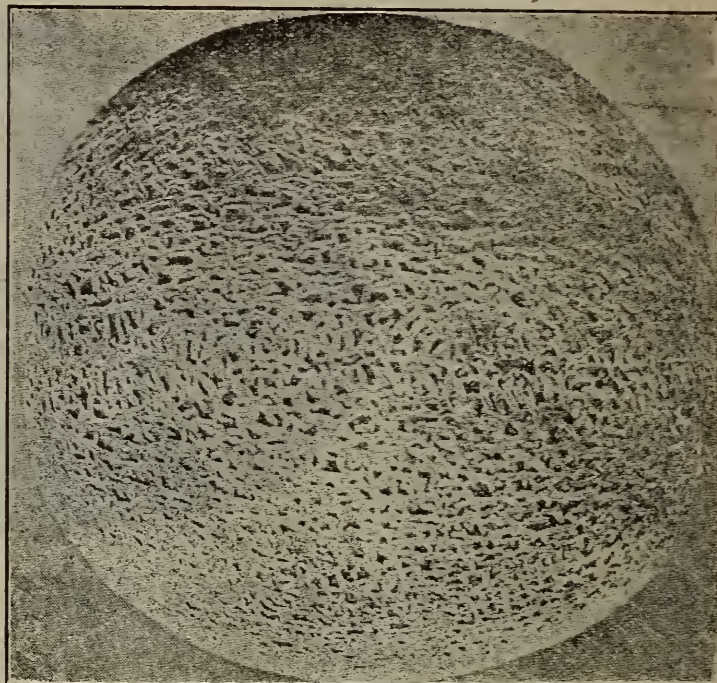
A & M Muskmelons

Our Selected Melon Seed Owing to our extensive trade with large melon growers and associations, we exercise every precaution possible to secure the best type of melons. Having procured the best seed obtainable, we have them grown especially for us. Our seed fields proved the wisdom of this method, for they showed the highest per cent of perfect melons.

Culture, see page 39.

Our Gold Lined Netted Rock This is the Rocky Ford with the tinge of yellow around the seed cavity bred up to the highest state of perfection from the rust-resistant strain. The heavy netting forms a rind so hard that it will ship to the far Eastern markets with practically no deterioration. The flavor out-classes all other strains of Rocky Ford. Turlock growers and shippers will have no other. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) postpaid.

In offering this melon we are quite in line with our established policy of bringing to your attention only the varieties that have been tried, proven and known to be of exceptional merit. We did the experimenting, you take no risk. The Gold Lined Netted Rock is the best type of Rocky Ford melons.



Our Gold Lined Netted Rock

Yellow Flesh Varieties

Improved Tip Top This melon is a greatly improved strain of the popular Tip Top. About the average size, with yellow flesh equal to or better in flavor. The improvement is in the hard, heavily netted rind, which makes it a good keeper and a good carrier. The rind of the Tip Top is soft and quickly shows the effects of even the ordinary handling, so that the melon looks unsalable. This is very objectionable to the retailer. The Improved Tip Top is so solid and heavily netted that it (10c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.10) (lb. \$2.00) postpaid.

A & M Tip Top This melon is very popular at Long Beach, almost to the exclusion of any other variety. This is a fine, round melon of such attractive appearance as to always sell quickly in the markets. It is sweet, juicy and delicious. The flesh is firm, but not hard, and is edible almost to the rind. The melon is of medium to large size and is one of the best yellow fleshed sorts. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.

No. 10 Yellow Flesh Columbus

This excellent muskmelon originated here and was introduced by us three years ago. It at once became popular with the cafeteria and hotel trade, where the entire crop of the first year was consumed. The second year the peddlers discovered that it would carry two and even three days on their wagons without deterioration. The storekeeper, too, learned of its good keeping qualities, and the housewife learned to know that every melon is a good one, so that it is now one of the most popular muskmelons in the Los Angeles market. A slightly oval melon, about seven inches in diameter, entirely without ribs, but roughly netted; color, outside light creamy, inside yellow. It is enormously productive and because of its solidity and heavy netting, it may be shipped in car lots without crating. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) postpaid.

No. 11--Improved Burrell's Gem

Has established itself as a standard melon. It is one of the biggest yielders. The shipper calls for it because it is solid and carries well in transit. The consumer wants it because of its excellent flavor. The growers all want our seed because we have the best strain. Many growers who bought of us last year have engaged their seed for next season. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.

Green Flesh Varieties

No. 3--A & M Nutmeg This melon has now surpassed the Pineapple in popularity. Our largest growers are planting it exclusively. In appearance it is so similar to the Pineapple that many growers fail to notice the slight difference in shape and netting, but the greatest merit is its excellent flavor. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

No. 9--A & M Triumph Is similar to the Pineapple, but not so large. This is much in its favor, as gardeners are complaining that the Pineapple is too large. It excels the Pineapple, in the excellence of its flavor, and is two weeks earlier. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.



Improved Tip Top

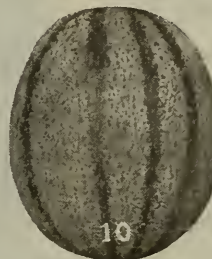
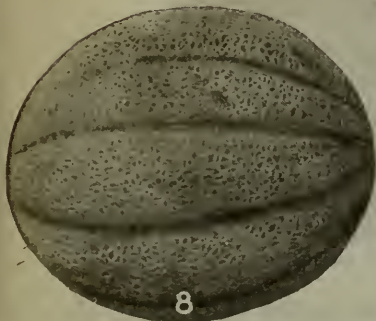
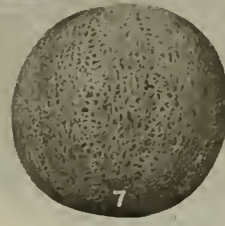
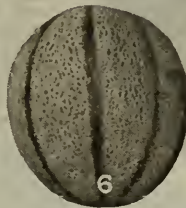
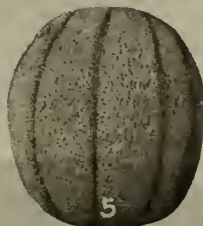
No. 8--Pineapple This melon has long been the favorite because of its solidity, heavy netting, and fine appearance. The peddler likes it because it is a ready seller. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

No. 6--Rocky Ford The flesh is light green in color, except next to the seeds, where it inclines toward a yellow. The flavor is exceedingly fine. The skin is regularly ribbed and thickly netted. It is a firm, solid melon and will carry in perfect condition for a week or more after its removal from the vine. It is a heavy cropper, and in wide favor as a market melon. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.50) postpaid.

A & M MUSKMELONS---(Continued)

No. 2, Tip Top.
No. 3, A. & M. Nutmeg.
No. 5, Improved Osage.
No. 6, Rocky Ford.
No. 7, Netted Rock.
No. 8, Gantler Pineapple.
No. 9, A. & M. Triumph.
No. 10, Burrell's Gem.
No. 11, Yellow Flesh Columbus.

This picture is of the average type and shows the comparative sizes.



1916 CROP
United States

Watermelons—100,965 acres.
Cantaloupes—41,273 acres.

California

Watermelons—4,917 acres.
Cantaloupes—14,935 acres.

Los Angeles Market This is the largest of all the Muskmelon family except California Giant, and we positively state that none will excel it in flavor. Gardeners object to its large size, but good profit will come to the grower who will plant it. It yields an enormous crop and all melons are very large and beautiful. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 85c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

Large Hackensack Sometimes called Turk's Cap. A large, round melon, flattened at the ends and well ribbed. The skin is deeply netted. The flesh is green, of delicious flavor. It is a strong grower, and is very productive. An old standard melon, in favor with market gardeners. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 70c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

Montreal Market Large size and delicious flavor. One of the best market sorts. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

No. 7--The A & M Netted Rock Has established for itself such a reputation with large growers and shippers that it is no longer necessary to refer to it as something new, but to give it prominence as one of our specialties that has created a demand for itself in all the large melon growing sections in the Southwest and Old Mexico. (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 85c) (lb. \$1.50) (5 lbs. \$6.75) postpaid.

California Giant The largest of all muskmelons, frequently weighing thirty pounds. It has green flesh of an excellent flavor. It finds a ready market. It is particularly good for spicing. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (lb. \$1.25) postpaid.

No. 11--The Columbus A green-fleshed melon. Its beautiful buff skin is covered with a very thick whitish netting; almost entirely free from ribs. The flesh is solid and thick, even at the blossom end, leaving only a small seed cavity. Can be safely shipped long distances. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

Improved Osage This has for many years been one of the leading varieties in the East because of its earliness and excellent flavor. It is of medium size, salmon flesh, with green rind, similar to the well-known Burrell's Gem. Once a customer for Osage, always a customer. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) (5 lbs. \$5.50) postpaid.

Jenny Lind An old time favorite; small, heavily netted, well ribbed, very early and of excellent flavor. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Pomegranate, or Peach-Melon For Mangoes. (Pkt. 5c).

A & M Watermelons

For Melon Blight—Mr. Van Norman of San Gabriel says: "Cover the centers where the blight first appears, with soil. It gives new life to the vines and prevents the spread of the blight."

For Melon Wilt—Pour a cup full of Bordeaux Mixture at the main stem so that the earth will be saturated and the liquid thoroughly applied to the stem. Here is the seat of the trouble, whether fungus or an insect, and the Bordeaux will remove the cause. Butler Bros. of Lamanda, complained to us that their vines were dying of wilt. We recommended this remedy which they at once applied only to the vine attacked, with the result that the vines revived, and in one night appeared to have made a new growth of six inches. The vines that were not treated continued to be attacked. They then applied it to the entire field, and saved it for the season. But Mr. Butler says toward the close of the season it appeared again, and he believes the Bordeaux should be applied at least twice during the season.

Culture—Plant the seed in a furrow, dropping six seeds every eight or ten feet apart; cover about two inches. As the vines grow, hill the earth about them until the roots are ten to twelve inches deep. When the vines are safely established, thin out, leaving only two vines to the hill. It is a good plan to establish your rows by throwing the soil toward the center, with one round of plowing, and cultivate every week during the early growth of the plant. This gives deep cultivation at the time it is needed, mulches the soil properly, makes proper rows slightly raised in the center, allowing a low place between for irrigating. Be sure to cultivate after each irrigation, as soon as the nature of the soil will permit.

WHITE SEEDED ANGELENO

Angeleno The most attractive in appearance of all watermelons,—its large size, beautiful dark green rind with a tinge of gold showing through the green. No other variety compares with the Angeleno in its bright red flesh, red to the rind and entirely free from fibre, simply melts to water, and not excelled in flavor. If the picker will observe the gold showing through the green as soon as it is ripe, he need never pick an unripe melon.

As a shipper it is extraordinary because it rarely breaks, even supporting the weight of a man weighing 170 pounds. A carload will average in weight from 25 to 30 pounds to the melon. (Pkt. 5c) (oz. 15c) (¼ lb. 45c) (½ lb. 80c) (lb. \$1.25) (5 lbs. \$6.00) postpaid.

Important Notice—Owing to the tendency of the seed of this melon to split open, we soak the seed in water for only a few hours. It soon closes and is ready to plant, and every seed will germinate, but if planted before soaking, the seed fills with dirt and decays. Please heed this notice.

A & M Watermelons



Angeleno

Black Seeded Angeleno Owing to the persistent demand for a black seeded melon, we have by hybridizing the Angeleno with the Black Seeded Chilian, and by four years of selection, succeeded in producing a pure Black Seeded Angeleno. It lost none of its excellence; indeed, if it were possible, it has improved. This improvement is noticeable in melons that show a trace of the stripe of the Chilian.

If you want a black seeded melon, do not hesitate to plant the Black Seeded Angeleno.

(Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.10) (lb. \$2.00) 5 lbs. \$9.00 postpaid.

Red Seeded Angeleno In the process of breeding the Black Seeded Angeleno, we have some Red Seeded Angeleno. This melon differs only in showing more of the stripe of the Chilian. The quality of the melon excels in sweetness the pure White Seeded Angeleno. (Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.10) (lb. \$2.00) (5 lbs. \$9.00) postpaid.

Chilian For twenty years the leading melon and just as popular today as at any time, and is likely to continue its popularity for many years to come. Its thin rind and delicious flavor commend it to the consumer, but its good shipping and selling qualities make it a favorite with the grower and dealer. It is very prolific and just a desirable size for the peddler to handle, and every melon is a good one.



Chilian

rants, hotels and cafeterias.

All Chilians are good regardless of the color of the seed, but the Black Seeded one is planted for early.

Price of all Chilians (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.75) postpaid.

Mr. Frank Johns, from Riverside County, writes us: "I want your very best watermelon seeds. Those you sent me last year were good enough. I sold \$174.00 worth from ¼ acre. That is why I prefer good seed."

Testimonial: "The seeds you sent me came in due time. I sowed them and I think every seed must have come up. I can not say enough in praise as to the fertility of your seeds." Mrs. A. J. Savory, Bowles, Cal.

White Seeded Chilian

Preferred because of its large average size.

Red Seeded Chilian

Preferred because of a sweet flavor peculiar to itself, and earliness.

Black Seeded Chilian

Preferred because of its earliness, short crop and black seed, which gives it preference at restaur-

Klondike This is now undisputably the most popular melon on the Los Angeles market. Why? Because it has a flavor quite as distinct from other watermelons as is a Bartlett pear from any other pear, and is sweeter even to the thin rind than any other. It is popular with the grower because it is wonderfully adapted to dry farming; wonderfully prolific, early, long and continuous bearing; the vines seem in their prime in September and October, long after other varieties have disappeared. Planted in rows twenty feet apart on dry soil that has been scientifically prepared the vines will interlace.

Read what Mr. Richardson says of it. He has one hundred and ten acres in one square level field planted solidly to this melon. His hills are 20 feet by 18 feet apart, one plant to a hill, and the field is nearly covered with vines interlacing everywhere, and every hill yielding enormously of the largest sized Klondikes that ever came to the Los Angeles market. The grower, Mr. Richardson, on October 2nd, said: "I have now 200 tons of ripe melons. Up to the present I sold every melon. The cloudy weather this week stopped the sales a little, but the Klondike is a good keeper. Why, I have cut melons six weeks after they were taken from the vine and found them in perfect condition."

"But what's the use of talking. It has got them all skinned a mile. Why, now when the other fields are all in mine is yet in its prime."



Klondike

The Klondike as a Shipper Owing to its thin rind and its extreme crispness, it was thought impossible as a shipper. Read what Mr. Standee says of it: "We shipped it from the Imperial Valley as early as the Chilian. The melons lost from crispness were too few to take notice of. They arrived in perfect condition, showing no wilt whatever, and sold more readily at from ten to twenty cents per hundred pounds more than other varieties. The carload averaged twenty-two pounds per melon."

The seed is small. One pound of Klondike will number as many seeds as two pounds of other varieties. The color of the seed is brown, mottled black. Brown seed (Pkt. 5c) (oz. 15c) (¼ lb. 50c) (½ lb. 90c) (lb. \$1.75) (5 lbs. \$8.00) postpaid.

Black Seeded Klondike Owing to the demand for a black seeded melon, we have done with the Klondike precisely as we have with the Angeleno. See description of Angeleno on this page.

(Pkt. 5c) (oz. 20c) (¼ lb. 65c) (½ lb. \$1.20) (lb. \$2.00) (5 lbs. \$9.00) postpaid.

The Tom Watson has for several seasons been the most popular melon in the South. Its shape is similar to the Kleckley Sweet, but the color is a lighter green. Its great merit is in its earliness, good flavor, thin rind, and good keeping qualities, making it one of the best of shippers. It is popular in the San Joaquin Valley. Our seed stock was selected from perfect melons, and our field showed a perfectly pure strain. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 70c) (lb. \$1.25) (5 lbs. \$5.75) postpaid.



Tom Watson, Weight 80 lbs.

Rattlesnake Has long been a popular melon with shippers. It is a long melon, having a white rind, with dark green stripes. Flesh of excellent flavor. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

The Excel A new melon that has made a sensation in the South and in the San Joaquin Valley. Its surpassing merits are in the **size** (average weight per melon in car is 35 pounds); enormous yield and excels all others as a shipper.

Read what the originator says of it
"During the last two years a great many growers of watermelons for market have demanded another melon, claiming the Watson would not stand far distant shipping satisfactorily. During 1912 and 1913 I made numerous trial tests of a number of supposed new varieties, but none proved satisfactory excepting the 'Excel.' After my trials in 1913 I concluded to put out several hundred acres in 1914 for market, and the results of this crop was so satisfactory, and the melons pleased my customers so well, that I do not hesitate to recommend this melon as a market sort to every planter of melons. In fact, it will produce more large marketable melons under the same condition than any of the other sorts of the long variety, and its carrying and keeping qualities are unsurpassed."

We planted an acre on our trial grounds and find it is not only all that is claimed for it, but we were surprised at the excellence of its flavor.

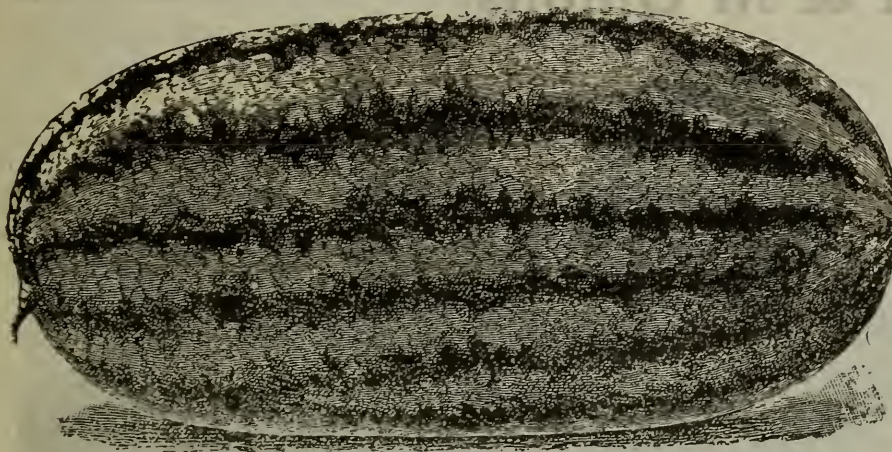
We recommend it to all shippers who want a very large melon. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.75) postpaid.



Excel. Wt. 68 lbs.

Kleckley Sweet

This is a good shipping melon. It is of medium size, a very green rind, with deep red flesh of delicious flavor. Our seed positively cannot be excelled. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.75) postpaid.



Florida Favorite

Florida Favorite

This melon is very popular with shippers, because of its extreme earliness, and all round good qualities as a good shipper. In appearance it is similar to the Rattlesnake, the rind being considerably darker. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) (5 lbs. \$4.75) postpaid.

Citron, Large Green Striped

Weights from thirty to sixty pounds. Is better than pumpkin for stock. Allowed to lay in the field or piled in the barnyard will not be damaged by frost nor decay until the following summer. (Pkt. 5c) (oz. 10c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c) postpaid; (10 lbs. \$5.00) f. o. b. here.

Citron, Red Seed

Small dark rind round melon, used for jam and preserving. It has an excellent flavor. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

TO THE UNEMPLOYED. READ THIS

A golden opportunity is being neglected by many persons, old and young, who have the leisure and can get the use of a small space of ground with water for irrigation that is within reach of any of the municipal markets. There is a demand for good fresh vegetables far in excess of the supply. Many market places have discontinued, not from lack of customers, but because the supply was of stale vegetables discarded from commission houses. Maintain the markets by supplying them with good fresh vegetables and fruits, and by doing so you will make a comfortable home for yourself, besides getting healthful, enjoyable exercise.

Mr. Harkness, aged 74 years, living near 42nd and Vermont Ave., Los Angeles, more than paid his grocery bill for a large family from vegetables grown on two vacant lots.

We request all newcomers who contemplate putting in a garden, whether for private use or for market, to consult us concerning the selection of seeds, preparation of the soil, fertilization, irrigation, preparing and marketing the produce.

It is our knowledge of these conditions and our eagerness to impart this information through these pages that makes this catalogue more valuable to the gardener and rancher of the Southwest and Mexico than any other.

This catalog throughout aims to give you the information you want, and you will generally find it where it ought to be. If you do not find the information you want, write us stating what you want to know.

A & M Mustard

Common Wild

(Pkt. 5c) (oz. 10c) (lb. 40c) postpaid.

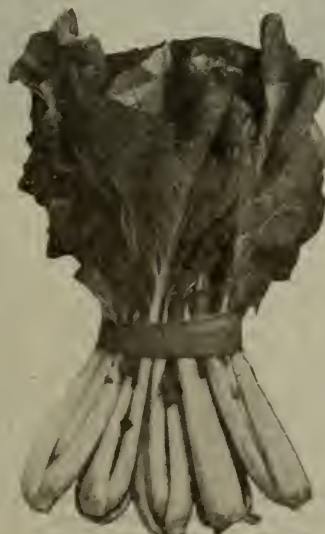
White Better for salad or culinary purposes. (Pkt. 5c) (oz. 10c) (lb. 40c) postpaid.

Southern Giant Curled

The true curled-leaf variety so popular in the South for planting in the fall. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (lb. 75c) postpaid.

Ostrich Plume Mustard

Is delicious as well as ornamental; the leaves resemble ostrich plumes, hence the name. (Pkt. 5c) (oz. 10c) (lb. 90c) postpaid.



Chinese White Mustard

Chinese White Mustard

This is a delicious vegetable and flavors strongly of Brussels Sprouts, being less pungent than the American varieties. It is greatly relished by the Orientals, and can be seen all the year round at vegetable stands kept by the Japanese and Chinese. (Pkt. 10c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.35) (lb. \$2.50) postpaid.

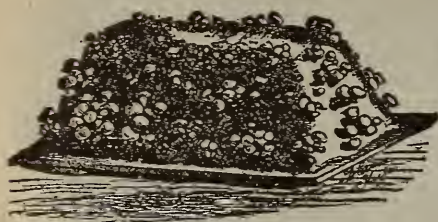
Chinese Green Mustard

This is an Oriental vegetable, and like the White Mustard, is grown all the year round, but like our American Spinach, thrives best in the winter season. (Pkt. 10c) (oz. 35c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.50) postpaid.



Chinese Green Mustard

A & M Mushrooms

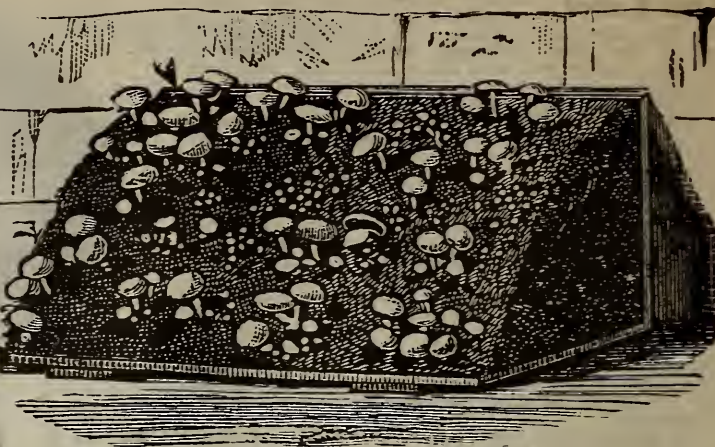


Mushrooms

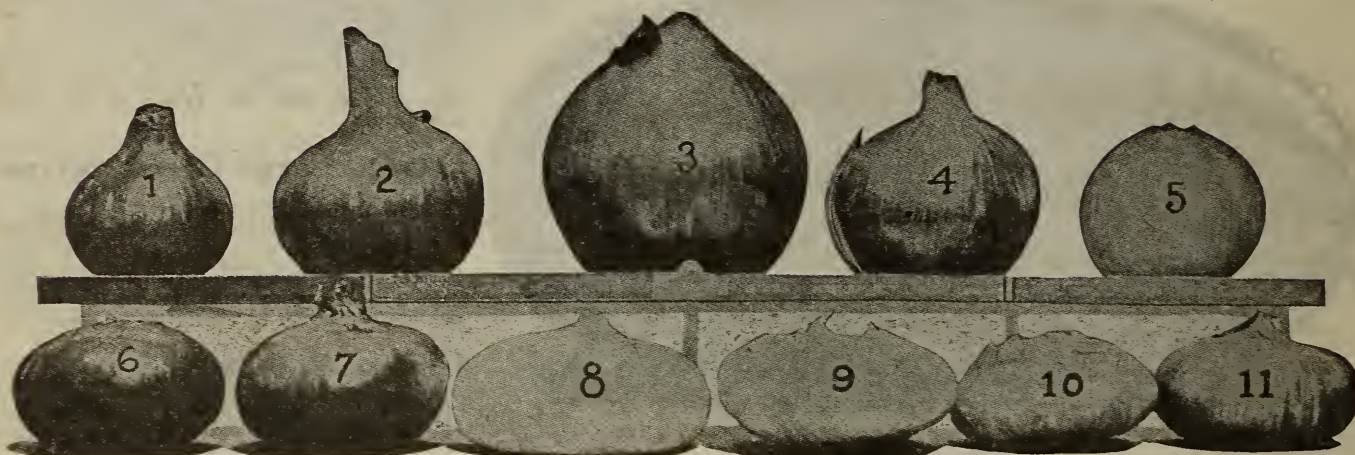
and very rich soil. One pound of spawn is sufficient for a bed 2x8 feet. We have the very best spawn obtainable. If interested, write for circular.

Pure Culture Spawn—Brandywine—Put up in bricks. Per brick, 25c; by mail 40c.

One of the most profitable crops that can be grown. The market is sure, because the supply never equals the demand. Mushrooms can be grown in any dark room or cellar where the temperature can be kept at 50 to 75 degrees. The main conditions in mushroom growing are proper and uniform temperature



A & M Onions



1. Australian Brown
2. Ohio Yellow Globe
3. Prizetaker.

4. Yellow Globe Danver
5. Southport White Globe
6. Yellow Flat Danver

7. Red Weathersfield
8. New Queen
9. White Portugal

10. Crystal Wax
11. White Bermuda

Culture—No crop is so liable to variations by cultivation and soil as the onion. Having rich soil with too much irrigation will produce thick-necked scallions, while the same soil well drained would produce the finest onions. A sandy loam well fertilized is best.

No vegetable is so sensitive to variation of climate as the onion. It is of utmost importance that the right variety is selected for each month in the year, and for your particular climatic conditions.

Either drill the seed thinly in rows fourteen inches apart, or sow the seed in seed beds, and when the plant is as thick as a straw, transplant on ridges; set two rows on each ridge and four inches apart in the row. See page 17.

Irrigate in the furrow between the ridges to avoid flooding the onion, which causes the onion to rot readily, rendering it unfit to ship or to keep.

To succeed in growing onions it is highly important to make a proper selection of seed suitable to the time of planting. West of the Coast Range plant Early Queen onion in August. It will then attain marketable size in March and April. If, however, the weather during February and March proves to be cold and rainy, a large percentage will shoot to seed. We advise that you pinch off the seed stem close to the onion. It will heal with no damage to the onion. East of the Coast Range, where the temperature seldom goes below 25 degrees, plant the Crystal Wax or Bermuda onion in September. We advise planting all other varieties from October until April, selected according to the market in which they are to be sold, and the facilities for irrigating.

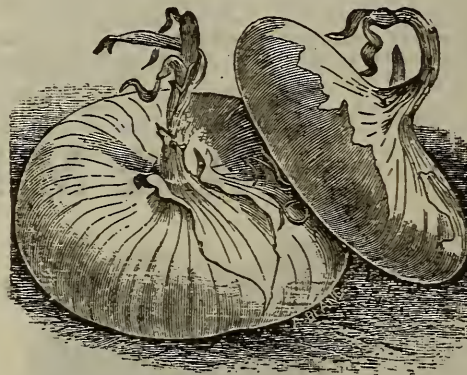
The consuming public prefers a white onion. The retail merchant wants a yellow onion because the white are too perishable. The shipper will handle the yellow, but prefers the brown because it is the best keeper.

The Southport White Globe is now popular because of its good keeping qualities.

Three pounds of seed are required to plant one acre for dry mature onions. One ounce will plant one hundred feet of row. For bunching onions plant one-fourth pound of seed to 100 feet of row. Five to seven months are required to mature onions.

We claim our onion seed to be of the highest type as to germination and purity. When you wish to plant onions consult us as to when, how and what variety to plant.

Crystal Wax and Yellow Bermuda



Crystal Wax Onion

These two varieties go hand in hand; they require the same climate and culture; where one thrives the other also thrives. They mature at the same time and bring about the same price on the market.

The Crystal Wax is a medium sized pure, waxy white onion. The Yellow Bermuda is about the same size as the Crystal Wax, but a yellow straw color.

These are the varieties that are grown in South-

ern Texas and in the Imperial Valley to the exclusion of every other variety. Why? Because they are adapted to that climate; because when planted the latter part of September they mature in March and April, just when the market is bare and the price is highest.

Our seed for several years has given the best results both in Texas and California. Growers using imported seed are satisfied with 300 to 500 crates per acre, and 25% off color. Our seed produces 500 to 800 crates per acre, with less than 1% off color. The growing of these varieties is not confined to Texas and Imperial Valley, but all along the Gulf Coast and on the Islands of Hawaii. They also grow to perfection in Arizona, New Mexico, and in Southern California Coast region, but in these localities the seed should be planted in January, February and March.

Crystal Wax—(Pkt. 10c) (oz. 45c) (¼ lb. \$1.25) (½ lb. \$2.25) (lb. \$4.00) postpaid.

Yellow Bermuda—(Pkt. 5c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.35) (lb. \$2.50) postpaid.



Yellow Bermuda

Southport Red Globe This beautiful onion is coming into favor here. It keeps better than other red varieties. (Pkt. 5c) (oz. 30c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.00) postpaid.

Australian Brown Quick to mature; a good keeper; solid and heavy; an excellent onion for shipping. The skin is a light brown. Its solidity gives it great weight and a sack weighs several pounds heavier than a sack of other varieties. The onions are thin-necked and ripen very early in all soils. As the plant makes a very quick growth it matures the bulbs before the hot, dry summer weather sets in, and this in connection with its exceptional keeping qualities makes it a most profitable variety. (Pkt. 5c) (oz. 20c) (¼ lb. 50c) (½ lb. \$1.00) (lb. \$1.75) postpaid.

Yellow Flat Danver Similar to the Yellow Globe in color and quality, but somewhat flattened in shape, and is earlier. It is a fine large onion with a very small stem. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.00) postpaid.

Ohio Yellow Globe This onion is the standard winter sort in many markets. The shape is almost globe form and the bulbs are quite large with thin necks. The skin is yellow, while the flesh is pure white, solid and of good quality. Its earliness makes it valuable for market. The crop is very uniform and ripens at one time. (Pkt. 5c) (oz. 30c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.00) postpaid.

Extra Early Red Flat This is the early onion grown in the Sacramento Valley for the San Francisco market, where it is in great demand. (Pkt. 5c) (oz. 30c) (¼ lb. \$1.) (½ lb. \$1.75) (lb. \$3.00) postpaid.

Red Wethersfield Probably the most popular red onion, and the one grown more largely throughout the United States than any other. It is a large, medium flat onion of excellent mild flavor. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.00) postpaid.

Prizetaker The handsomest, largest Yellow Globe Onion—A good keeper, of finest flavor, handsome shape and enormous size, many single onions having been raised to weigh five pounds or over from seed the first year. The Prizetaker grows always to a perfect globe shape with a bright straw-colored skin. (Pkt. 5c) (oz. 30c) (¼ lb. \$1.00) (½ lb. \$1.75) (lb. \$3.00) prepaid.

J. H. Peck, Selma, Cal., writes: "I planted ¼ lb. of your Prizetaker onion seed last year on March 4th on just one tenth of an acre on reclaimed tule land, never irrigated at all. I harvested 95 sacks of 100 pounds each of fine marketable onions weighing from ½ to 3 lbs. each."

L. B. Kennedy, Gorman, Cal.: "It may interest you to know that last year I planted ¼ lb. of your Prizetaker onion seed, from which I grew one ton of the best onions ever raised in this district. I sold 20 100-lb. stacks at \$2.00 per sack. I kept enough besides for our own use. They were grown without irrigation but the soil was damp and very alkali. I am trying the Australian this year because although the Prizetaker is good they are not good keepers."



A Carload of Southport White Globe Onions Ready for Cold Storage

Southport White Globe

This onion now easily leads all other varieties in popularity on the Los Angeles market, and is selling more readily and at higher prices. It is a good keeper, either in the field or in cold storage. It is a silvery white in color, globe-shaped, and of delicious flavor.

Mr. Norton of this city grew 35 acres last season, planting the seed in February. In July his onions were ready for the market. All through August Mr. Norton was Onion King, setting the price on the local market. He planted our seed and says it could not have turned out better. His crop is evidence of it. Let your main planting be from Jan. 1st to March 15th. (Pkt. 5c) (oz. 45c) (¼ lb. \$1.50) (½ lb. \$2.50) (lb. \$4.50) postpaid.

Growers of Bermuda Onions, READ THIS!

We have a limited number of Prof. F. W. Mally's Bulletin on the subject of **The Bermuda Onion**.

It is thorough and complete in every detail of the culture of this onion,—preparation of the soil, seed beds, preparation of the field, planting, culture, irrigation, cultivation, fertilizing, harvesting and marketing.

Much of the cultural instructions in this book will apply to other than The Bermuda Onion.

If you wish this Bulletin, send three 2-cent stamps either to us or to the Commissioner of Agriculture, at Austin, Texas.

White Portugal, or Silverskin

A good second early white flat onion to follow the Extra Early White Queen. It should be planted any time from Nov. 1st until April 1st. It is a good keeper and desired for shipping. It has long been a favorite, and probably no other variety is more generally popular with growers throughout the United States. Under good cultivation the average diameter is from four to six inches. The thick skin is a clear silvery white, flesh snow-white, sweet and tender. (Pkt. 5c) (oz. 40c) (¼ lb. \$1.25) (½ lb. \$2.25) (lb. \$4.00) postpaid.



Bunch Onions

round. (Plants, 1 bunch, 10c) postpaid.

Chives are also easily grown from seed. Sow in beds and transplant as soon as they begin to multiply. (Pkt. 10c) (¼ oz. 30c) (oz. \$1.00).

Multipliers or Shallots Are always in stock from September 1st to January 1st. (½ lb. 25c) (lb. 40c) prepaid.

Bunching Onion

Many think any white onion will do for a bunching onion, but this is not true. Our growers for fancy trade have learned that we have the best strain of seed for this purpose, and our sales amount to thousands of lbs. each year. The picture shows a sample of what our seeds produce. They are just the right shape. (Pkt. 5c) (oz. 15c) (¼ lb. 75c) (½ lb. \$1.40) (lb. \$2.50) postpaid.

Chives

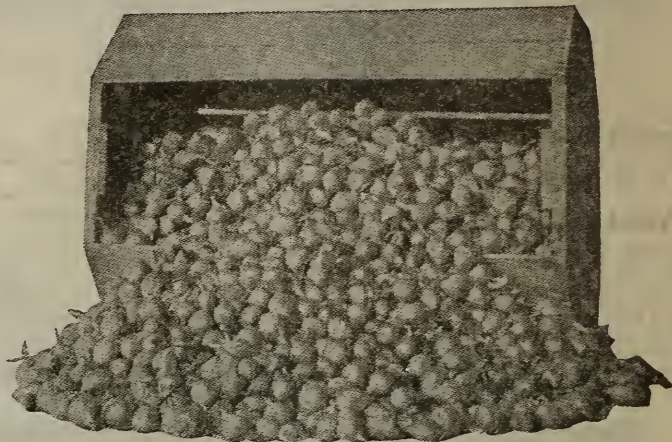
This species of onion is extensively used for flavoring. A small spot in the garden planted to Chives will supply a family the year

A & M Onion Sets

Australian Brown, Yellow Danver and Silverskin—(Lb. 30c) prepaid. Write for quantity prices.

The earliest onions are grown from sets planted in September. This brings them in the market in February and March, when prices are highest. About 250 lbs. of sets will plant one acre.

For the home garden no vegetable is so valuable as the onion, and for this purpose it is better to plant sets, because they are ready for the table six weeks after planting. Set them three inches apart in rows six inches apart. When ready for use, take up every other one as needed, allowing the balance to grow to mature size. One pound of sets will plant about fifty feet of row. (Lb. 30c postpaid) (10 lbs. \$1.50 f. o. b. here). For larger quantities, write for prices, which range from \$10.00 to \$15.00 per 100 lbs.



Onion Sets

A & M Imperial Garlic

The Imperial Garlic

Originated in the Imperial Valley, and is peculiarly adapted to that kind of climate. Like the Bermuda Onion, it matures quickly and must be harvested before the extreme heat of summer. Read what the originator says of it:

"In reply to your note regarding the superior points in this garlic, '1st—It is 6 weeks to two months earlier than any I have ever tried; will mature in about five months from planting. Last season I planted October 21st and shipped the first April 7th, well matured. I bought 100 lbs. of the Large White and planted the same time. I harvested it June 1st, and got about one-half as much per acre, of an inferior quality.

"2nd—It will produce about as much again, bearing as high as forty cloves in a bulb, eighteen being the most in any other variety I tried.

"3rd—It comes up readily and grows all winter, and matures the first warm weather we have in the spring, while the other kinds will make but very little growth in cold weather. This garlic is the kind that will succeed in the hot valleys of Imperial, Coachella, Yuma or in Texas, where the Bermuda Onion thrives.

"4th—My garlic was all harvested and marketed before the advent of the thrip, which did much damage to the late varieties. September and October are the proper months for planting garlic, but the Imperial Garlic may be planted as late as February."

Owing to the limited supply of this variety, we advise you



Common

Imperial

Comparative actual average size of each

to place your order at once. (Lb. 50c) postpaid; (10 lbs. \$4.00) (100 lbs. \$30.00) f. o. b. here.

Common Garlic At market price.

THE WAR AND THE SEED TRADE

With the prolonged turbulent conditions in Europe centered right in the region of our greatest source of supply of seeds for the biennial crops such as Cabbage, Cauliflower, Beets, Turnips, etc., and many annuals, particularly Spinach, a serious shortage has been caused in seeds of these varieties. However, the condition is redounding to the benefit of American seed growers. California can now supply us with nearly every variety of seed we need.

All America and Europe are now looking to California for seed so essential to the life and prosperity of a nation. Our export business in seeds is indeed surprising, and the new varieties of seeds that almost imperceptibly grow to enormous proportions, for instance California is now acknowledged foremost in onion, celery, cauliflower, casaba, radish, peas, beans, sweet peas, and about every variety of flower seeds listed in this catalog.

It was the cheapness of some European seed that deterred California growers from enlarging their list of crops. Present conditions abroad will permanently benefit the California seed grower.

A & M Okra, or Gumbo

A good and healthful vegetable for a summer crop.

Culture—Plant seed from April 1st until Aug. 15th. Plant six to ten inches apart in rows three feet apart. One ounce will plant one hundred feet of row.

A & M Early Greenpod

We have for a long time endeavored to produce an okra that is earlier than the White Velvet, which has long been the popular market variety. We have succeeded by selection, in producing not only an earlier variety, but a much more tender and prolific okra, and have named it Aggeler & Musser's Early Greenpod.

It is just the thing for the truckers in the Coachella and Imperial Valleys, because it matures in April, fully a month ahead of other varieties; bears continuously until late in the season.

The pods are three to four inches long, deep green in color, and when young are absolutely stringless.

Every home garden should have this variety, as should the trucker. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (½ lb. 50c) (lb. 75c) postpaid.

White Velvet

On account of its attractive white color, good flavor and tender pods when quite young, it has long been a favorite variety. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (½ lb. 50c) (lb. 75c) postpaid.

A. & M. Early Greenpod

10c) (¼ lb. 25c) (½ lb. 40c) (lb. 60c) postpaid.

Mammoth Long Pod We have greatly improved the original strain and now its productiveness is simply wonderful, the pods shooting out from the bottom of the stalk within three inches of the ground, and the whole plant is covered with them to the height of a man's head, five to six feet. Pods are an intense green in color, of unusual length, nine or ten inches, tender, and of good flavor. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 60c) postpaid.

A & M Parsley

Culture—Same as lettuce. (See page 12.)

Champion Moss Curled Extra dark. Leaves fully crimped; handsome, bright green color; very ornamental. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (lb. \$1.25) postpaid.

Emerald or Dwarf Extra Curled Leaves tender, beautifully crimped; handsome, bright green color; very ornamental. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (lb. \$1.25) postpaid.

Extra Double Curled An old curled variety for garnishing. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 70c) (lb. \$1.25) postpaid.

Hamburg Turnip Rooted Fleishy vegetable roots for soups, etc. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (lb. \$1.00) postpaid.

Look for this case. If your dealer does not carry Aggeler & Musser Seed Co.'s packet seeds, request him to get them, because we do not put our seeds out on commission. Commission seeds are put up and placed on sale throughout the country in August, long before new crop seeds are harvested. Therefore the seeds are at least one year old before they are put into packets. Our packets are never put up until the new crop seed has been delivered. You are sure to get fresh seeds when you buy from the AGGELER & MUSSER SEED CO.'s CASE.

For Cleaning Seeds

We have the most complete and best equipment in the city for cleaning and re-cleaning seeds of all kinds and of every description. At an expense of several thousand dollars we have installed three Clipper fanning mills, one suction cleaner, and the lately invented Myers Gravity Separator, which is the last word in seed cleaning machinery. It readily separates the good seed from the bad by process of gravity. Every employee connected with the house has instructions to see to it that no unclean seed is allowed to pass. Therefore we request you to report to us any violation of these instructions.

For Testing Seeds

We have with us a graduate from the agricultural college

A & M Parsnip

(See Bunch Goods, Page 25)

Our New French Parsnip

Just right for the market gardener. The picture shows the actual size at time of marketing. It grows slightly larger, but it attains this size in ninety days, which is a full month earlier than other varieties. It is crisp and succulent. It will at once supersede all other varieties because of its all-round desirability. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.



Devonshire This Parsnip was recommended to us by our European growers. Today it is the most popular Parsnip with our market gardeners. It is scarcely more than half as long as the Hollow Crown, but it is often three inches in diameter. Tender, and has an excellent flavor. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Hollow Crown

Has long been a favorite in the family garden on account of its excellent table qualities. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

New French Parsnip
Actual Size

A & M Peanuts

Write for Special Circular.

Georgia Improved Peanut This variety is much superior to the ordinary Peanut, yielding fewer imperfect pods and combining earliness, productiveness and size; yields on ordinary land about 40 sacks to the acre. (Lb. 25c) (prepaid; 100 lbs., market price).

Tennessee Red Is an excellent variety, bearing three or four kernels to the pod. The kernels are of medium size and of good flavor. It is the favorite variety with the confectioner. (Lb. 30c) prepaid; 100 lbs. \$12.00) f. o. b. here.

Packet Seeds



AGGELER & MUSSER SEED CO.

at Davis, whose duty it is to test all seeds when they come to us and again in six months a general test is made. You can write us at any time for a germination test on any seed you contemplate buying.

Home Garden

For the home garden we recommend the Marvel, to be planted for very early peas, and if they can be trellised, the Tall Telephones for later crop. If they cannot be trellised, plant Perfection, or any other of the late varieties offered here. All are good.

Plant also the edible pod varieties. See remarks on page where listed.

Culture — Peas are very susceptible to soil and climate. Within the radius of a few miles from Los Angeles, and in one locality or another peas may be grown every month of the year.

In a thermal zone plant peas from September 1st to February 1st, and in lowlands from January 1st to September 1st. In summer months, from May to September, plant three inches deep in heavy soil and more deeply in sandy soil. From December to April plant not more than one inch deep. The object of this is to have the seed deep enough to lie in moist earth, and shallow enough to get warmth from the sun. Never irrigate after planting peas until they come up. Irrigate before planting but do not plant until the soil is tillable.

Peas will rot in soil that is too wet, especially during the winter months. They will stand a great deal of frost and cold weather until they bloom, but after they bloom a heavy frost will destroy the pods, and if cold enough, will kill the vines. Many planters sow one hundred pounds of seed per acre, but fifty pounds of seed per acre drilled in rows and well cultivated will produce larger pods and more peas per acre; besides, there will be less mildew. Put the rows north and south for winter planting to give them as much sun as possible.

At the first appearance of mildew, spray with the best sulphur obtainable, and do the spraying in the morning. If your soil is sandy it would be well to inoculate the seed with Nitrogen Bacteria.

Pride of Calhenga is a good variety but we have none to offer this season.

Dwarf Telephone, good but none to offer until next season.

Green Peas!

Carloads of Green Peas

Every Christmas day every household within the United States may have on the table green peas grown in Southern California, right fresh from the vines.

Hundreds of acres are each year planted in September for northern and eastern consumption. This crop is ready for shipment from the latter part of November, and a continuous supply is maturing until April.

If you are living in a district where peas may be safely grown during the winter months, we suggest that a number of neighbors agree to plant collectively enough acreage that shipments may be made in car lots. Not less than fifty acres should be planted to mature at one time. Thus a carload may be shipped at each picking.

A WORD ABOUT SHIPPING

An independent shipper may occasionally find an out and out cash buyer for a full crop, or maybe an occasional shipment at a satisfactory price, but the dealer with a line of regular customers must have a regular dependable supply while the season lasts; therefore unless the independent shipper has produce enough to keep up a reasonable supply, he will have the choice of consigning his irregular shipments to a commission house agreeing to accept whatever returns may be handed him, or selling them outright to large shippers whose business it is to buy up everything offered for shipment to the far East—concerns who are prepared to handle such shipments by the most economical methods and to reap the greatest profits. They can afford to pay you a cash price that will be more profitable to you, as you will believe if you will stop to figure the cost of the time, labor, equipment, and bookkeeping to run an independent shipping business with an inadequate supply.

We recommend you to grow a diversity of crops of such things as may be shipped. Have something growing all the year. In August, September and October plant cauliflower, cabbage, onions, lettuce, beets, carrots, turnips, peas, beans and potatoes. During the early spring months grow summer squash and commercial beans.

A & M Peas

Write for quantity prices on all varieties.



The Marvel

The Marvel Among market gardeners there is always a race to have marketable peas early in the fall and late in the spring. It is the summer peas that bring the high price. **The Marvel** is just the variety for late spring, mid-summer and early fall grower. The vines are very hardy and branching, bearing two pods on each stem. The pods are well filled and above medium size. The peas are very sweet. (Pkt. 10c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$2.00) f. o. b. here.

American Wonder

The earliest of all wrinkled peas. Of dwarf habit, growing from 9 to 11 inches high, and producing a profusion of good-sized and well-filled pods of the finest flavor. (Pkt. 5c) (½ lb. 20c) (lb. 30c) prepaid; (10 lbs. \$1.75) f. o. b. here. Write for quantity price.

Nott's Excelsior

Although a few days later than the American Wonder, the pods will average fully one-third larger, containing 6 to 8 large peas, so closely packed together that they become flattened. (Pkt. 5c) (½ lb. 20c) (lb. 30c) prepaid; (10 lbs. \$1.75) f. o. b. here. Write for quantity price.

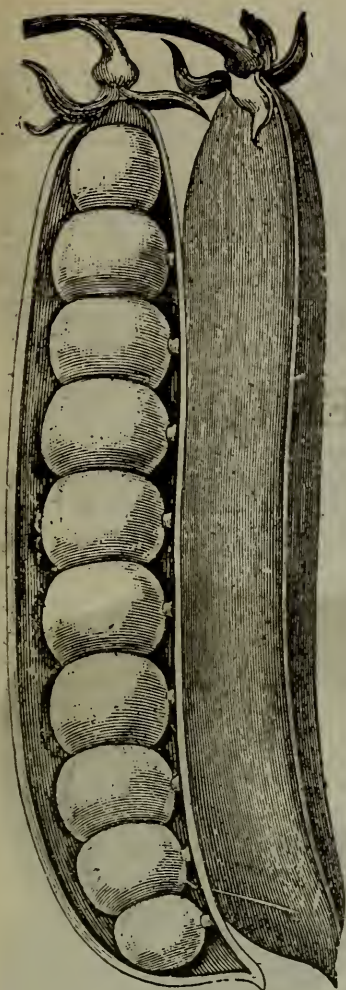
Yorkshire Hero

A very popular market pea in this section. Abundant cropper and excellent in quality. Height 2½ feet. (Pkt. 5c) (½ lb. 20c) (lb. 30c) prepaid; (10 lbs. \$1.50) f. o. b. here.



Admiral (actual size)

Write for quantity price.



Perfection Pea (actual size)

A & M Perfection

New But Wonderful. Ideal for main crop, because it is very hardy and resists mildew to a remarkable degree. The foliage is a very dark green, grows two feet tall, branches wonderfully, enormously productive of large solid pods, similar to but longer than Stratagem. The peas are of excellent flavor, but the great merit is its ability to resist the summer heat. Therefore we recommend it for all year, but especially for late spring and midsummer planting at a time when other varieties fail. All who were fortunate enough to get some of these peas last season have already engaged their seed for next planting. We cannot praise it too highly. (Pkt. 10c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.75) f. o. b. here.

A & M Superior

In our continued efforts to bring forth something better than that which we have we offer for the first time our Superior Pea, which has proven by our experiments to be exceptionally hardy, an excellent medium early variety, maturing well ahead of the Yorkshire Hero, bearing large pods well filled with sweet peas; a good shipper. Grows two feet tall. (Pkt. 10c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.75) f. o. b. here.

Admiral

This excellent variety was introduced locally two years ago with only a limited quantity to offer. Every grower who was fortunate enough to get some was extremely pleased at his good fortune. Has dark

green foliage, profusely branching vines bearing abundantly of large well-filled pods of delicious sweet peas that mature in twelve weeks from planting. The picture is of pods grown on our trial grounds, and shows the shape and actual size of the pod. It has had two years trial, and every gardener that once grows it wants it again. That is the best recommendation. (Pkt. 10c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.75) f. o. b. here.

Tall Telephone Vines vigorous, growing about 4 feet high, with large, coarse, light-colored leaves and producing an abundance of very large pods filled with immense peas which are tender, sweet and of excellent flavor. Throughout the South and by some growers in California it is preferred to all other varieties because of the hardiness of the vines and its large, well-filled pods, making it one of the best varieties to grow during the winter months for shipping. Pkt. 5c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.75) f. o. b. here. Write for quantity price.

Stratagem

A favorite in the San Francisco market. The pods are of a dark green color and remain firm several days after picking. A very strong grower; very prolific, pods of good size and well filled. Vines stand upright about 2½ feet; an excellent variety. (Pkt. 5c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.75) f. o. b. here. Write for quantity price.



Dwarf Telephone

trained on a trellis. This variety is very prolific with large, fleshy pods. (Pkt. 5c) (½ lb. 20c) (lb. 30c) postpaid.

A WORD ABOUT EDIBLE-POD PEAS

They originated in China. France was the first nation to accept them as a commercial commodity. In France they are grown largely for canning purposes, and are offered here in cans only as a luxury to be served at first class hotels and restaurants.

The pods when quite young are picked, stringed and cooked as green beans. They are deliciously sweet. They are as easily cultivated as any other variety, and should be grown in every home garden.

When you are unable to decide what variety of pea to plant, write us, stating the acreage you wish to plant and where you intend to market the crop. We can often assist you to decide upon the right variety.

Premium Gem

A dwarf variety very prolific and sweet. (Pkt. 5c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.75) f. o. b. here. Write for quantity price.

Gradus

The largest of all extra early varieties; medium tall, quality superior to all other varieties. (Pkt. 5c) (½ lb. 20c) (lb. 30c) postpaid; (10 lbs. \$1.75) f. o. b. here. Write for quantity price.

Dwarf

Gray

Sugar

(Edible pods.) Of extraordinary yielding qualities, and unsurpassed as an edible-pod variety. (Pkt. 5c) (½ lb. 20c) (lb. 30c) postpaid.

Tall Gray

Sugar

(Edible pods.) Should be trained on a trellis. This variety is very prolific with large, fleshy pods. (Pkt. 5c) (½ lb. 20c) (lb. 30c) postpaid.

WHAT ARE YOU?

A 5-acre man, a 100-acre man, a 1,000-acre man, or a 10,000-acre man?

All are equally good men in their class to succeed, and each man that succeeds deserves equal credit.

The 10,000-acre man might fail to make a living on five acres, and it is not to be expected the 5-acre man would make a success on 10,000 acres.

We have about Los Angeles many successful men in each of the above classes. The 5-acre man has poultry, rabbits, a cow, pigs, and he grows nearly enough food for all of the stock, besides growing berries, fruit and vegetables, the sale of which supplies the cash for groceries and other necessities.

The 100-acre man must be robust, strong and healthy. He can, with proper equipment, keep the acreage growing something all the year round. Start in February with sweet corn, follow it in June with potatoes, and in November plant cauliflower or cabbage on the same ground. Three crops a year averaging \$100.00 per acre per crop (and this is a low estimate) means \$30,000.00 per year, and more than one good man is doing this.

The 1000-acre man must supply the brains and directing force to manage other men to do his bidding and do it correctly, and he must know, too, when it is done correctly. His work is usually the running of a large dairy, and growing enough feed to keep it going profitably, and the profit is in proportion to the efficiency of the manager.

There are a number of 10,000-acre ranchers in Southern California, but there are only a few 10,000-acre men in charge of them, and were it not for these few, we would never have known there is such a man as a 10,000-acre man who is equal to the job.

There are in the Southwest some 100,000-acre ranches, but we know of only one 100,000-acre man.

A & M Peppers

The growing of peppers in Southern California ranks in importance with cabbage, cauliflower, casabas and celery. The dried chili is being shipped East in car lots. The green chili, Pimiento and Chinese Giant are grown all the year around for the produce markets throughout the United States, and hundreds of acres of Pimiento and Chili are grown under contract with large canneries who ship the canned article to all parts of the world. The canned chili was unknown here until we introduced the Anaheim Chili and Pimiento.

A word about the market. In 1913 dried chilis sold as high as twenty cents a pound, and were unobtainable in large quantities at that price. The growers of Orange County went to extremes, with the result that the 1914 acreage was so enormous that the price of dry chili dropped to five cents per pound, and no buyers at that. Believing the market was over-supplied for several years, the acreage for 1915

was reduced to actual contract buyers. There has been but little increase in the acreage of 1916 crop, so that 1917 is the logical year for another big planting, but there is little likelihood of an over-production because the market has become so much enlarged that it will require a much larger acreage to supply it.

Green chilis in midsummer sell for about \$20.00 per ton, netting \$200.00 per acre. Dried chilis bring a normal price of 10c per pound, netting the grower about \$200.00 per acre.

Culture—For early green peppers, sow seed in hot beds in December and January. Transplant as soon as weather and soil in your locality will permit. For main crop sow seed in February, March, and April, in hot bed. Pepper seed needs the heat of a hot bed to germinate it during these months. For fall and winter crop sow seed in out-door beds well prepared, during May, June, July and August. Winter crops can be grown in places that are entirely frostless.

PIMIENTO

OUR SEED IS PURE. Owing to the large acreage planted to Chili, the Pimiento growers who planted seed of their own growing found their peppers badly hybridized with chili, resulting in a product that was ill-shaped and pungent, therefore could not be sold on the market nor to the canner. Our seed is pure and true to type, as one large grower testified by ordering his seed from us, discarding his own. He said: "I shall hereafter depend upon you for my seed, because it is the purest I have ever planted."

This pepper was introduced by us in 1911. It has already become one of California's many staples ranking with the Anaheim Chili as a canned product. One cannery used the entire crop from 200 acres of Pimientos. This is because of its lack of pungency and its firm, thick fleshiness, which permits of its being scalded and peeled. It should be grown largely in the family garden, because it is delicious with salads or stuffed, and a healthy food to eat when ripe as you would eat an apple.

Every home garden should have a row of this Pimiento. For salad, parboil it to remove the skin. Stuffed and baked it is far superior to all other peppers. (Pkt. 10c) (oz. 50c) (¼ lb. \$1.65) (½ lb. \$2.75) (lb. \$5.00) postpaid.



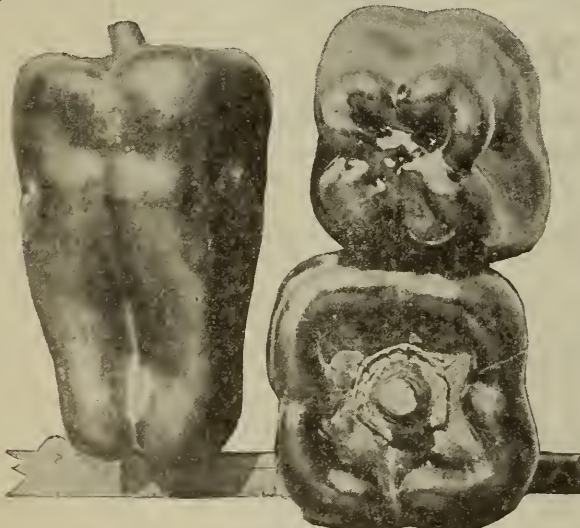
Pimiento



Chinese Giant Pepper

Chinese Giant A very large pepper of the Bull Nose type, often growing to five inches in diameter. This is the variety grown so extensively in frostless sections for the winter trade, when the grower gets as much at 20c per pound for the green pepper. One grower claims that his returns from five acres was \$4500. (Pkt. 10c) (oz. 60c) (¼ lb. \$2.00) (½ lb. \$3.50) (lb. \$6.00) postpaid.

A & M Perfect Ruby King Ordinarily they grow from 4 to 6 inches long by 3 to 4 inches thick. Plant is of sturdy, bushy habit, and each one produces handsome fruit. This pepper is popular because of its solid, thick meat and mild flavor. (Pkt. 10c) (oz. 40c) (¼ lb. \$1.25) (½ lb. \$2.25) (lb. \$4.00) postpaid.



A. & M. Perfect Ruby King



Pimiento



One Plant of Anaheim Chili

Anaheim Chili Pepper

The popularity of this Pepper continues to grow enormously. A few years ago known only to growers in Orange County, where it originated, it is now a staple article of commerce, superseding the extremely pungent Black Mexican pepper so popular in Old Mexico. Our sales of Anaheim Chili seed in Arizona, New Mexico, Texas and Old Mexico have been surprisingly large. The seed we have was procured from selected peppers, and not one pod was less than seven inches long. We grow the peppers, and have the seed taken out on our own grounds, under our supervision. It is 100 per cent pure. It is a safe crop to plant; it has no insect enemies; when dried it is not perishable. The price is rarely less than ten cents per pound dried, and often double that figure.

The market for green chilis, too, is enormous, because of the large demand of the canneries who used the product of several hundred acres last season, and this industry in only in its infancy. The Anaheim Chili is desired above all others by the canner because of its fleshiness and slight pungency. Canned Chili was unheard of until we introduced the thick-meated Anaheim Chili. (Pkt. 5c) (oz. 25c) (¼ lb. 75c) (½ lb. \$1.35) (lb. \$2.50) (5 lbs. \$12.00) postpaid.

There was such an enormous overproduction in 1914 that the sale of chili was not a matter of price, but simply no demand equal to the supply. This has resulted in great good to the industry, because growers and dealers alike sought new markets and carloads of dried chili were shipped to cities that never before used them, with the result that the 1916 crop will be sold out before the 1917 crop is harvested.

The average production per acre of green chilis is 10 tons per acre, valued at \$20.00 per ton, or one ton of dried chili seldom selling below 10 cents per pound. This is a nice side issue for the man with a small acreage if he need not hire labor.

The American Paprika The hottest pepper that you are after, plant this Paprika. It is used extensively for culinary purposes under the name Paprika. It is in a class by itself. (Pkt. 10c) (oz. 50c) (¼ lb. \$1.25) postpaid.

Bell or Bull Nose Do not confuse this with the Chinese Giant. The Bell Pepper is similar in shape to the Chinese Giant, much more prolific, but less than one-half as large, and on this account the gardener intending to sell his crop should not plant it, particularly to grow for the winter trade. We recommend it highly for the home garden. (Pkt. 5c) (oz. 25c) (¼ lb. \$1.20) (½ lb. \$2.00) (lb. \$3.50) postpaid.



Mexican Chili

This Chili is grown in Mexico more largely than any other, and is rapidly increasing in acreage here. It is not a rival to the Anaheim Chili or Pimiento, but is in a class by itself, on account of its extreme pungency. It is not canned, but is used almost exclusively for grinding and sold as cayenne, the trade of which is surprising. The enormous 1914 crop of Mexican Chili was sold out before the Anaheim Chili. (Pkt. 5c) (oz. 25c) (¼ lb. \$1.20) (½ lb. \$2.00) (lb. \$3.50) postpaid.



Mexican Chili

Small Chili

A very short heavy-set bush, almost a solid cluster of small peppers of 2 inches in length. (Pkt. 10c) (oz. 30c) postpaid.

Cayenne

A long, slim pepper, rather pointed, and when ripe a bright red color. Extremely pungent. (Pkt. 5c) (oz. 25c) postpaid.

Tobasco

The plants develop into large bushes, bearing profusely the little bright peppers in sprays. A mature pepper measures about one inch in length. These peppers are extremely pungent. (Pkt. 10c) (oz. 25c) postpaid.

Floral Gem

A small hot pepper used for pickling or as a pot herb. (Pkt. 5c) (oz. 25c) postpaid.



- 1 Tobasco
2 Floral Gem
3 Small Chili
4 Chili Pequin (See No. 5)—Very Pungent. (Pkt. 5c) (oz. 25c)
5 Chili Pequin
6 Cayenne
Actual Size

Potatoes

See Page 6

Owing to the enormous decline of the yield of potatoes to one-fifth that of five years ago, the Agricultural schools of California have given special study to this subject, and have held conventions throughout the state, giving lectures of instruction to farmers. This is a good work, and will result in much improvement. The State Legislature enacted a bill (No. 1573) entitled "an act to establish a standard for California certified seed potatoes, making a violation of this act a misdemeanor." Certified seed means that at the request of the grower, an official of the state will inspect the crop three times—first during the blossom season, second just before maturing, and third after they have been harvested. If pure to type and free from disease, the grower will be given a certificate, and the potatoes may be sold as certified seed.

Proper planting is to first prepare the ground by deep plowing and thorough pulverizing. Cut the potatoes two eyes to a piece. Then make a furrow eight inches deep, and while the soil is yet moist, drop in the seed and cover at once about three inches deep when the ground is cold, and five or six inches deep in sandy soil when the ground is warm. Commercial fertilizer should be used. Sow it in the furrow just as the potato is coming up, and harrow the field cross-wise. This will destroy all weeds and leave a level field. As the vines grow, cultivate but do not throw the soil toward the potato until after the tubers have started. This is to cause them to form deep in the ground, so that when they are properly hilled up the potatoes will be at least six inches below the surface. This will avoid the potato moth because it does not work much below the surface, only on exposed tubers. The eel-worm is more difficult to avoid, but we recommend a good heavy application of lime to the soil before planting.

The price of our Certified Seed is 50c per hundred pounds higher than the price of seed that has not been certified.

Bliss's Triumph This is a round red potato, is not a big yielder, but is the earliest potato we know of. It gets entirely ripe in nine weeks. The potatoes produced are always good size and are of exceptionally good quality. They have proven the most satisfactory for the desert country, where moisture is scarce and a quick crop is necessary. They make very small tops and the potatoes form very close together, hence they can be planted a foot apart in the rows and have room enough.

American Wonder This is the most popular early variety in the Southwest. It is a long white potato resembling the Burbank. It gets entirely ripe in three months. On good land they make an enormous yield of fine potatoes of excellent quality. They set from fifteen to twenty-five potatoes to the hill, and it is not advisable to plant them on very poor land, as you will have too many small potatoes.

Early Red Rose This is a long red potato about ten days later than the American Wonder. It is very desirable for selling in lug boxes on the early market and is better for poor land than the American Wonder.

Early White Rose This is the potato that is most popular for a general crop in Southern California, owing to its good yield of nice, smooth potatoes. It will grow on poorer land than the American Wonder and is two weeks later. It is one of the very best for the table.

Burbank This is the best late variety, fully a month later than the White Rose. It sets heavily and yields a big crop on good land. We do not recommend them on poor land as they make too many small potatoes.

POTATO INSPECTION—All potatoes intended for seed purposes must be inspected by the County Horticultural authorities before they may be received and again before they may be shipped out. This is a great protection to the grower.

We have grown under our supervision 18 carloads of White Rose and 3 carloads of Triumph potatoes, certified by Prof. Shear, of the State Department of Agriculture. This seed is now (January, 1917) in our warehouse, ready for immediate planting. (See page 6.) Our Imported Northern grown seed is practically free from scab or other disease, and does not need treating, but unless our local grown potatoes are treated for scab, you are sure to harvest an inferior quality of potatoes.

We advise against treating potatoes with Corrosive Sublimate, because it is a deadly poison, and the least quantity taken into the stomach may prove fatal to man or beast. It is dangerous because the potatoes are apt to be eaten after having been treated.

We advise using Formaldehyde, one pint diluted to forty gallons of water, immersed one hour. As evidence that the treatment produces results, we quote Mr. Crew, of Riverside County, who says:

"It was quite easy to distinguish in the field where the treated seed grew, both in the vines while growing, and in the yield and quality of the potatoes. Of course I manured heavily, but I harvested above an average of 200 sacks per acre on all of my 80 acres, and some spots yielded nearly 300 sacks per acre, and all clean, certified seed, which must be attributed to treating the seed, and proper cultivation."

Mr. Crew's crop of 30 acres yielded 200 sacks per acre,—a total of 6,000 sacks, which sold for \$3.00 per sack, making a total of \$18,000.00.

A & M Sweet Potatoes A & M Georgia Yams

The handling of Sweet Potatoes for seed purposes has been unsatisfactory to our customers as well as to ourselves, on account of the perishable nature of the small Sweet Potato. We have decided to list only plants of which we will have a large supply, at lowest market price.

However, if you wish us to secure sweet potatoes for seed purposes we will do so at your risk; check or cash must always accompany the order, either for Sweet Potatoes or plants, no matter what your financial standing is.

We will have plants ready about March 1st of the following varieties: **Yellow Jersey**, **Yellow Nansemond**. Price—(75c per 100, prepaid) (\$4.00 per 1000) f. o. b. here.

When many thousands are wanted, write for price.

This excellent yam has been so scarce for some years, and the demand so great, that we last year sent east for a supply and grow sufficient to meet all probable demands this season.

Yams to bed out for plants (5 lbs. 60c) postpaid within 1st, 2nd and 3rd zones. Write for quantity price.

Plants (12 plants 15c) (25 plants 25c) (100 plants 80c) postpaid: (1000 plants \$4.00) f. o. b. here.



OUR NEW BUILDING

Before you receive another catalog, we will be comfortably settled in our new building in the Wholesale Terminal, situated on the block between Seventh and Eighth Streets just east of Central.

Our building will be fifty-five feet wide by 100 feet long, and six stories high with basement, and the roof fitted with greenhouse and hot-beds for testing seeds.

We will improve, if possible, our already efficient facilities for cleaning seeds, and a new innovation will consist of large tanks specially built for the purpose of dipping all seed potatoes in a solution of Formaldehyde. This will insure clean seed.

Every facility that will further the reliability of the seed we sell, will be added in the construction of this new building, regardless of expense. The floor space with the numerous shelving and hangers will be approximately 40,000 square feet.

A & M Pumpkins

For stock only, plant Mammoth Tours, California Mammoth, Estampes, Cushaw, Kentucky Field or Cheese, Sandwich Island, Pot Iron, and Connecticut Field.

For the canneries, plant Estampes, Kentucky Field or Cheese, also Boston Marrow and Hubbard Squash.

For the home plant Boston Pie, Seminole, and Hubbard Squash.

Culture—Pumpkins delight in red, sandy soil that is perpetually moist,—the soil that retains moisture by the dry farming method, because pumpkins do not want too much water, and to flood them would destroy them, so when irrigating make the furrows nearly as far from the hill as the tip of the vine, and when the vines intersect, run the water through the middle of the row. Plant the seeds every 8 or 10 feet, allowing only one plant to remain.



Estampes

Estampes We have the purest stock seed from which to grow this pumpkin. It is the heaviest pumpkin for its size that we know of; 100 pounds is not an unusual size for them to attain. It is the canners' favorite because of its thick, deep red flesh and the fine sweet flavor. It is without exception the best for dairy stock, and only the scarcity of the seed has prevented it from being more widely known. (Pkt. 5c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.



Kentucky Field or Cheese Pumpkin, Growing in a Young Orchard

to nearly all the popular varieties; this one was unaffected by the hot sun, and remained in perfect condition while other varieties were sun-burned and decayed quickly. (Pkt. 5c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c) postpaid.

Sandwich Island The most popular pumpkin in Ventura County. It is as hardy as a citron. A good one to plant where water is scarce. (Pkt. 5c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Kentucky Field or Large Cheese

This variety is locally called Sweet Pumpkin, and is grown more than any other of its kind for stock, because it is a good keeper, notwithstanding it has a soft shell. It is fleshy and very sweet; also very good for pie, and is largely used for canning. On one large ranch in the San Fernando Valley there was planted a large acreage



Connecticut Field (Jack-o'-Lantern)

Connecticut Field (The Jack o' Lantern)—This is the pumpkin planted largely for the Hallowe'en and Thanksgiving trade, at which time they bring \$20.00 per ton, and two cents per pound at retail stores. Twenty tons to the acre is no unusual yield. If the land has been manured liberally a full crop can be grown among corn. It is a most excellent keeper, and will be sure wealth to all who grow and feed it liberally. (Pkt. 5c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c) postpaid.

Mammoth Tours Is one of our best stock pumpkins, and a most prolific yielder on good soil. It produces a pumpkin at every other joint that will average fifty pounds, more or less, according to the richness of the soil. It is a very popular pumpkin where it is better known. Mr. Short, of the San Fernando Valley, says: "There is simply nothing like it for bearing." Mr. Richardson, of the San Gabriel Valley, says about the same. (Pkt. 5c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Cushaw or Crookneck This excellent pumpkin ought to be planted more largely. It is the heaviest pumpkin for its size because of the small seed cavity. It is excellent for pies, and yields enormously. (Pkt. 5c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Japanese Pie Pumpkin (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (lb. 75c) postpaid.

California Mammoth

This is the large pumpkin so well known locally. As many as 20 tons have been taken from one acre. It not infrequently attains a weight of 200 pounds. (Pkt. 5c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c) postpaid.



California Mammoth

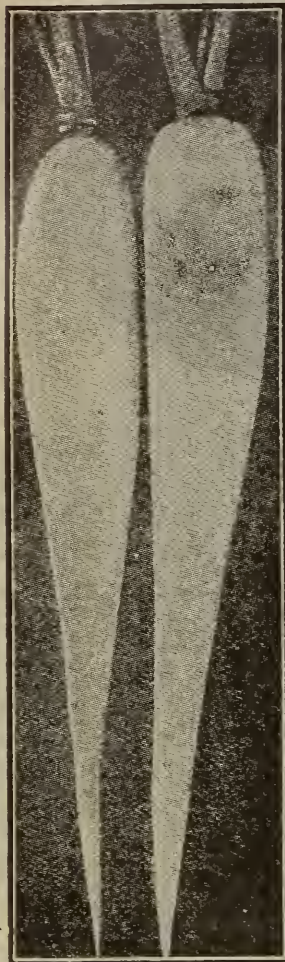
Sugar or Boston Pie A small handsome variety, and very popular. The skin is a deep orange yellow; flesh fine grained and sweet in taste. Famous in Boston as a pie pumpkin. It sells better on our local market than any other variety, except the Jack o' Lantern at Hallowe'en time. (Pkt. 5c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.



Sugar, or Boston Pie

Seminole This delicious pie pumpkin is just the thing for family use. Plant it about the garden where it may be trained to cover a fence or shed. It is very prolific of pumpkins weighing about six pounds, and will keep twelve months or longer. Just big enough for two pies. Just the thing for shipping. (Pkt. 5c).

A & M Radish



Long White Icicle

Early Long Scarlet

Very brittle and crisp; color a bright scarlet; small top. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Long Black Spanish

A delicious, crisp winter radish. It sells well at the market. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Large White Chinese Stump Rooted

This is a winter radish of deliciously sweet flavor; can be eaten as a turnip as it is without stringency. The Chinese use this variety exclusively. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Half Long Scarlet

This variety should be more popular because it is just the right size for table use, not too large, never pithy, but always crisp and sweet. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Mixed Radish This mixture, consisting of almost every known variety of radish, is deservedly popular throughout the country because it grows radishes suitable to each season and to every condition of soil. You are sure to have them early, medium and late; small, medium and large—something all the time. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

A WORD ABOUT RADISHES—Few people realize how easily radishes can be grown and how healthful they are. A piece of ground three feet square or a strip here and there about the garden can by proper selection of seed, continuous planting and cultivation, grow more than enough for the family.

Culture—Seed may be sown the year round in California. Radishes thrive best in light, sandy loam, made rich with manure. Sow in drills, 10 inches apart. An ounce of seed will sow a hundred feet of drill, 10 pounds to the acre.

Early Scarlet Turnip

One of the earliest and best sorts for forcing; its color is very handsome; flavor very mild, crisp and juicy; stands a great amount of heat without becoming pithy. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

French Breakfast

A splendid variety, medium-sized, olive-shaped, very crisp and tender; of a beautiful scarlet color. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

White Tipped Scarlet Turnip

An early variety of medium size and excellent flavor, and of a very handsome appearance. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Epicure Radish

Ready for the table within three weeks; always crisp, a delightful relish. The small round red and white radishes make a pretty showing. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

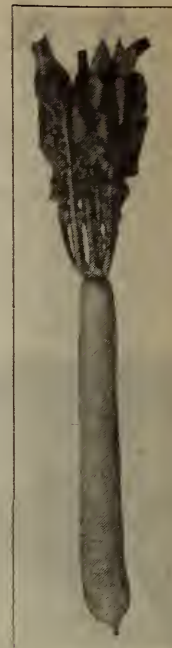
Chartiers A distinct, exceedingly handsome and attractive sort; color of top is scarlet rose, shading into pure waxy white at the tip. Attains a large size before it becomes unfit for the table. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.



China Rose



Scarlet Turnip White Tip Radish



All Season

Long White Icicle For the home garden we consider this a most excellent table variety. Its extreme earliness, beautiful pure white appearance, excellent flavor and crispness should make it a favorite everywhere. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Crimson Giant Turnip

A variety extraordinary in that, while growing to an unusually large size, it is always tender, crisp and of mild flavor. It remains in perfect condition a remarkably long time, and, unlike other forcing varieties, does not become pithy even when twice their size in diameter; root turnip shaped; color a beautiful crimson carmine; flesh firm, crisp and tender. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

All Season Radish A new one from Japan called "Tokishiraza," meaning all-the-year. It is a very large, long, snow-white radish; deeply rooted, does not extend above the soil, hence it always is tender and crisp and has a delicious flavor. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Japanese Summer Radish

This radish was introduced here by the Japanese several years ago. Its beautiful white color and mammoth size attracts great attention. It is very tender and the flavor is excellent and mild. It attains perfection in California, growing twenty-six inches in length and three inches in diameter. It is a profitable radish to grow, as it sells readily and is relished by all. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

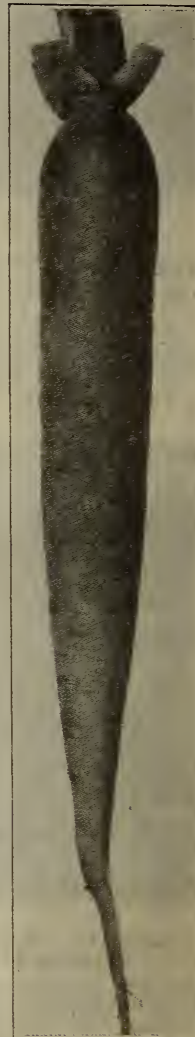
California Mammoth

Pure white; the flesh is tender, sweet and crisp, keeps well. Plant from September 1st to March. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (½ lb. 50c) (lb. 90c) postpaid.

Round Black Spanish

Skin black, flesh white, of firm texture. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

China Rose A delicious radish, crisp, with little tendency to become pithy. A beautiful coloring from light red at the top to almost pure white at the tip. It is a good seller and is in great demand by the vegetable peddlers. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.



Chartier

Horseradish

GROW MORE HORSERADISH

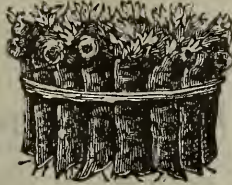
The local supply is far below the demand. This condition should not exist, because it is a profitable crop. One grower realized \$1100.00 off of two acres. When asked why he discontinued growing it, he replied: "I have not the right soil. It requires a rich, sandy loam, frequent irrigation, but it must be well drained so that the soil does not remain muddy or sour. Then, too, there is so much disease or blight prevalent that one must get a clean start and keep clean by changing places as soon as the soil is infected."

One dozen will supply enough for the use of one family. It requires about 16,000 roots to plant an acre.

Prepare the ground as you would for potatoes; stick each root upright into the bottom of the furrow 12 inches apart, and 3 inches deep, or drop the roots and cover as potatoes.

The Bohemian Variety is decidedly a more rapid grower than the common. We buy our roots from the far East to avoid the disease so prevalent here. (12 roots 25c) (100 roots \$1.00) postpaid; (1000 roots \$8.00) f. o. b. here.

Vegetable Plants and Roots, See Page 16.



A & M Roselle



Roselle Pods
From Which Jelly is Made

Culture — Sow seed early in April in the field, four feet apart, in rows six feet apart. Cultivate as Okra. There is an early and a late Roselle. Be sure to get the early variety because the frost is almost sure to destroy the late variety before it matures. We offer only the early variety.

Roselle or Lemonade Plant

Is an annual plant that has been sufficiently tested to indicate its great value and to warrant more extended cultivation. The fruit is used for making jelly and jam. The jelly is superior to guava or currant, and is labeled as "Queensland Jelly," is shipped from Australia to all parts of Europe. It is easily grown from seed if planted after the ground is

warm; grows rapidly, resists drouth and is very ornamental. Every home garden should have a row of this ornamental and useful plant. (Pkt. 10c) (oz. 50c) (¼ lb. \$1.50) (½ lb. \$2.50) (lb. \$4.50) postpaid.

NOTE—Our local growers are not up with other localities in advertising and educating the public to the uses of roselle. One grower in Texas has thirty-five acres. The local demand has never yet been fully supplied, and only a few people ever heard of it. Someone ought to get busy.

We have been advised by a lady from Texas, also one from Cuba, to remove the seed pod, and the jelly is thus greatly improved. The calyx is an excellent substitute for cranberry sauce or pie.

Having received numerous inquiries how to use Roselle, we have decided to insert the answer here. Pick the pods that grow at the axil of each leaf. Boil them until soft and strain through a cloth. Add ½ pint of sugar and the juice of ¼ of a lemon to each pint of juice, and boil again until it jells.

The pods are ready for use in September. We are advised that excellent jelly may be made from the leaves. Therefore it will not be necessary to wait for the pods to mature.

Read pages 1 to 16.

If interested in growing beans read pages 23 and 24.

A & M Rhubarb

Culture—Sow the seed any time from February 1st until July 1st, in drills two feet apart, in order that you may cultivate with a horse cultivator. Within five months after sowing the seed, the Wagner's Giant variety will be large enough to market, even though the roots are not larger than your thumb. Transplant at any time when the roots are large enough. Rhubarb requires a rich sandy loam, well drained. Never flood the crown nor bury it with soil. Therefore plant it on ridges or on the sides of an irrigating ditch. In our hot climate partial shading is beneficial. If you can do so, plant it in an orchard, setting the roots three feet apart, but if in a sunny place, set the roots 18 inches apart, that the leaves of one plant will shade the crown of another.

The largest rhubarb ever brought to this market was grown by the side of an irrigating ditch on the peat lands of the West Adams Street Gardens.

Wagner's Giant Is undoubtedly the most profitable variety we have yet offered. It is displayed at the market places in apple boxes, and the boxes are barely long enough to accommodate the large, thick stems that will average one-half pound each, often weighing more than a pound. It is remarkably early, bearing large stems within five months from planting the seed, and grows nearly the entire year. The stems are so tender that they do not need peeling. It is not as red as the Winter Crimson, but of good color. (Pkt. 20c) (oz. \$1.00) (¼ lb. \$300) (½ lb. \$5.50) (lb. \$10.00) postpaid.

READ THIS TESTIMONIAL—"I have very successfully grown Wagner's Giant Rhubarb from the seed for the last three years. At present the plants are in fine shape with lots of edible stems and has been plucked all summer, while my summer varieties are all dormant.—Mrs. H. M. Hoge, Monterey Co., Cal."



On Both Sides of an Irrigating Ditch

Winter Crimson This variety is a favorite because of its hardness and excellent flavor. While the stems grow to desired length, they are rarely thicker than the thumb. It is desirable for the home garden, where good table quality is first consideration. (Pkt. 10c) (oz. 80c) (¼ lb. \$2.50) (½ lb. \$4.25) (lb. \$8.00) postpaid.

Strawberry This is the pink colored variety grown extensively in Central California for early market, and is shipped to all parts of the United States. The stems are not long, but very broad and thick. It is of excellent flavor. (Pkt. 10c) (oz. 80c) (¼ lb. \$2.50) (½ lb. \$4.25) (lb. \$8.00) postpaid.

RHUBARB ROOTS

For Plants see page 16.

Wagner's Giant Seedling—(\$20c each) (\$1.25 per dozen) postpaid.

PROFIT FROM VEGETABLES

Truck Farmers Near Town Have Big Advantage in Retailing

Since the establishment of municipal markets in various parts of the city and a free license to the producer, allowing the retailing of fresh vegetables and small fruits, poultry and dairy products, the road to success depends largely upon the small farmer living on a good road, within fifteen miles of the city can build up a profitable trade for all he can produce of fresh vegetables, fruits, poultry and dairy products. The road to success depends largely upon the ability of the grower to furnish a good article in season, give honest measure and to have polite, obliging manners. Politeness, honesty and quality of produce go a long way in making and holding trade. Any one accustomed to eating freshly gathered vegetables will readily give an extra price for such. Remember no license is required to peddle.

A & M Salsify



Salsify

Culture—Sow the seed in the spring in drills one foot apart and one inch deep, thinning out plants to four inches. It succeeds best in light, well-enriched soil. One ounce of seed for 50 feet of drill.

Long White Favorite market variety and the best flavored. (Pkt. 5c) (oz. 10c) (¼ lb. 50c) (½ lb. 90c) (lb. \$1.50) postpaid.

Mammoth Sandwich Island

A larger and superior variety. Mild and delicately flavored. (Pkt. 5c) (oz. 10c) (¼ lb. 70c) (½ lb. \$1.25) (lb. \$2.00) postpaid.

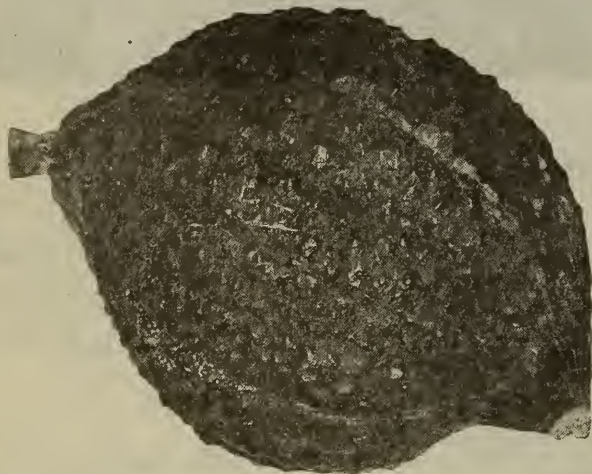
A & M Sorrel

Broad Leaved This is boiled and served like spinach, also delicious soup is made with it, and it possesses a very fine flavor. As the hot sun tends to increase its acidity, a northern exposure is advisable. It should be sown in drills 18 inches apart. It is hardy but the roots should be divided every four years. (Pkt. 10c) (oz. 20c) (¼ lb. 50c) (lb. \$1.75) postpaid.

A & M Squash

WINTER VARIETIES

Culture—Seed should not be planted until all danger of frost is past. In open ground plant in hills ten feet apart where irrigated, and fifteen feet apart where not irrigated. In orchard, plant only one row between trees. When the vine is well along, do not flood the hill, but keep the irrigation furrow nearly as far from the hill as the length of the vine. Keep in mind that the roots are longer than the vines.

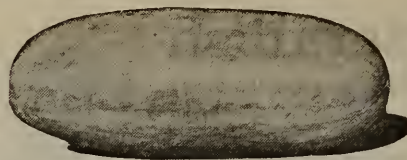


Green Wartyed Hubbard

Green Wartyed Hubbard This variety is grown throughout the United States than any other. It is used in many ways, but mostly for pies. It is a good keeper and because of its hard, warty rind, it is the best of shippers. Therefore many acres are grown in Southern California for that purpose, and many more for the Bakers, the Cannerymen, and family consumption. When in doubt what to plant for a summer crop, plant Hubbard Squash if your soil is suitable. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

NOTICE

Keep this catalog, because the high cost of paper may make it impractical to publish one next year. The cultural instruction given in this book will apply next years as well as this.



Banana

Banana The squash grows from one to two feet in length. The skin varies from a bright yellow to a dark olive green. Flesh firm and solid, of beautiful orange-yellow and excellent quality. Mr. E. L. Van Ripper says it is the sweetest of all squashes and

wishes everyone to try it. It keeps from one season until another. When quite young it is excellent to cook as a marrow. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Fordhook Squash This is a most desirable squash. The vines are of strong, vigorous growth and wonderfully productive. Squash oblong in form, eight to ten inches in length, slightly ridged; smooth, thin, yellowish skin; flesh very thick and of a light yellow color. If gathered young for cooking, no other squash approaches it in flavor, while if allowed to ripen on the vine they can be stored and will keep in excellent condition until late the following June. Either for baking like sweet potatoes or making pies during the winter, the quality is very fine. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (½ lb. 50c) (lb. 90c) postpaid.

English Cream Marrow



English Cream Marrow

It is as sweet as a sweet potato, and has none of that pumpkin flavor. It is good any way it comes on the table, and is better than Hubbard Squash for pie. It is 6 to 8 inches long and half as thick. (See picture.) Decidedly firm, it will keep from one season to another. (Pkt. 10c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) postpaid.

Golden Hubbard The flesh is of a deep golden yellow—a much richer color than the Hubbard—fine grained, cooks very dry, and has excellent flavor. In its keeping qualities it is fully equal to the green variety. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Acorn

Every home garden should have a few hills of this delicious squash. For table use or for pies it is unsurpassed, uniform in shape and bright red color which makes it a desirable ornament for the table.

Receipt—Remove the blossom end, take out all the seed, and bake in an oven. When baked, remove the edible portion, season and serve in the shell. In this way it looks like a huge acorn, and is quite ornamental. (Pkt. 5c) (oz. 20c) (¼ lb. 60c) (½ lb. \$1.00) (lb. \$1.75), postpaid.



Acorn Squash

Pike's Peak or Sibley An excellent winter squash. Fine grained and superior in flavor and keeping qualities to the Hubbard squash, but not so well known. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Boston Marrow Fresh, bright orange or rich salmon color; for sweetness and excellence is unsurpassed. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

MONEY IN GROWING SQUASH AND PUMPKINS.—The canners consume enormous quantities. They use principally the Estampes and Large Cheese pumpkins, paying about \$4.00 per ton. Next to the canners are the bakers, who use Hubbard Squash and Small Sugar, paying about \$10.00 per ton.

A & M Summer Squash



Italian Squash

Italian Squash

Is a bush variety, and should be planted 5 feet apart. It should be used when quite young. When served it has a rich creamy flavor not equalled by any other squash. Some gardeners have made considerable money making a specialty of it. For the family garden we would recommend its use instead of the small White Bush Scallop, because of its excellent flavor. Since our introduction of this squash a few years ago, it has now become one of the staple products

on the market. It is listed with the daily market reports, and is grown largely by the gardeners in frostless sections for the early trade. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) postpaid.

Golden Summer Crookneck The popular well known Crookneck. (Pkt. 5c) (oz. 10c) (¼ lb. 30c) (½ lb. 50c) (lb. 85c) postpaid.

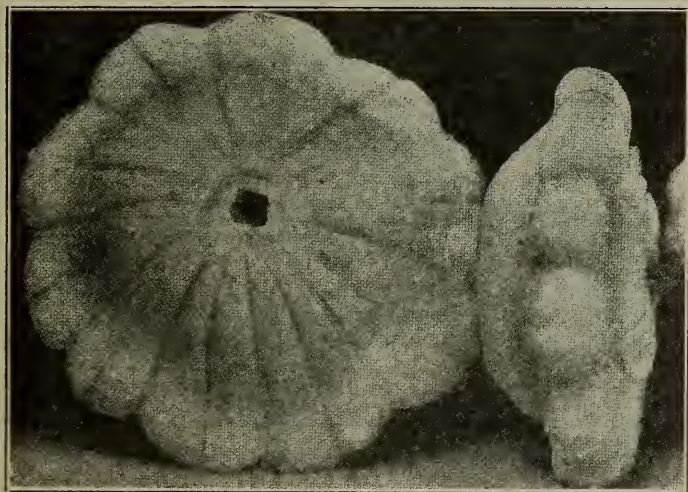


Summer Crookneck

Long White Marrow This is exceedingly delicious as well as the most prolific of all English Marrows. Steamed when quite young or fried as egg plant it is equal to egg plant itself. The squash is about 12 inches long when mature, and has a light creamy color. (Pkt. 5c) (oz. 15c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

A & M Improved White Bush Scallop

As will be seen by the picture, this squash is similar to the well known White Bush Scallop, but it is more elongated toward the blossom, which makes it more desirable from the gardener's point of view. It looks better and sells more readily. It is very prolific. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.



A. & M. Improved White Bush Scallop

Cocozelle

An excellent squash for many purposes. Equal to the White Bush Scallop for the table when taken quite young. It is enormously prolific. When gathered closely and fed to stock, the vines will keep bearing continuously all summer, and far into the fall. It survives drouth to a wonderful degree. (Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) postpaid.



Cocozelle

A & M Spinach

See Bunch Goods Page 25

Culture—Sow in drills, one foot apart, and for succession, every two weeks; as it grows, thin out for use, keeping clean of weeds. It grows the year round in California. One ounce of seed for 100 feet of drill; 20 pounds to an acre.

A & M Summer Success For several years we have endeavored to secure a type of Spinach that would prove profitable to grow in summer time, and after several trials this one proved the greatest success. With moist, loamy or peat land the A. & M. Summer Success will grow leaves 14 inches long. The leaves are very meaty and crisp. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Prickley Seeded, or Winter Spinach

This variety thrives best in the coldest weather, and is the money-maker for the market gardener. Our seed is imported from Holland, and for ten years has given entire satisfaction. The leaves are large, fleshy and very tender. (Pkt. 5c) (oz. 10c) (½ lb. 60c) (lb. \$1.00) postpaid.

Round Summer Leaves thick and fleshy, not as large as the winter variety, but better for summer growing in damp land. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.



Bloomsdale A. & M. Thick-leaved Winter

A & M Improved Thick-Leaf Winter

This new variety is one of our valuable introductions and has proven its superiority over all other varieties for beautiful large thick-leaved bunches that bring double the returns to the grower; sells more readily to the peddler and pleases the housewife. For canners no other variety is equal to it. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Long Standing This is a good sort for market gardeners because it is slow to shoot to seed, and the quality is equal to the best winter variety. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

Bloomsdale Large green thick savory crumpled leaves; grows luxuriantly, producing twelve to fifteen tons per acre. Throughout the East and South, this variety is used more extensively than any other. Try it here. (Pkt. 5c) (oz. 10c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

A WORD ABOUT SUMMER SQUASH

In foothill sections where there is little likelihood of late frosts, plant the seed in February, selecting our Improved White Bush Scallop and Italian. These are the earliest and best varieties, as well as the most prolific.

Plant again in September for late fall crop. From \$400.00 to \$600.00 per acre is realized.

A WORD ABOUT SPINACH

Few people realize the enormous acreage planted each year to spinach, throughout the United States, and the importance attached to it as a health preserving food. Several thousand acres are grown each year for canners, and thousands of acres are grown in the South during the winter months and shipped to the Northern cities.

It may be found on the Los Angeles Market each day throughout the year, as it is hardy enough to endure our lowest temperature, and with proper cultivation (see page 12) it endures the heat of our summers.

We recommend growing the Bloomsdale variety in the home garden and for the canner, but always the A. & M. Summer Success during the summer months.

Spinach contains much iron, and is a good healthful food. When the war started, one of the first things the Holland government did was to prohibit the exportation of spinach seed.

A & M Tomatoes

For Plants See Page 16

Culture—Tomatoes do best on light warm, not over-rich soil, and success depends upon securing a rapid-vigorous and unchecked growth during the early part of the season. Sow in hot-beds from 6 to 8 weeks before they can be set out of doors, which is when danger from frost is past. See page

Transplant three to six feet apart in rows four to six feet apart, according to the variety,—three feet for those varieties of upright growth, as the Dwarf Champion, and six feet is not too far apart for vining varieties which will soon cover the ground solidly. The soil should be plowed and pulverized to a depth of ten or twelve inches, the deeper the better, in order that the roots may keep in the cool earth, for as soon as the roots are over-heated by the hot dry soil near the surface, the plant quickly sickens and dies, and the grower can see no cause for it. The roots spread more rapidly and farther than the vines. Therefore give shallow but frequent cultivation.

In the early fall when the nights have become cool and heavy dews prevail, it would be well to spray with Bordeaux Mixture, to prevent blight. It may be necessary also to spray after each rain throughout the winter.

To prevent root-blight, pour a cupful of Bordeaux around the stem at the surface of the ground.

The time of planting and variety depend upon your local market, soil and climatic conditions, and the purpose for which they are to be grown.

On sandy loam soil near the foothills, where it is nearly frostless, we recommend planting seed of the A. & M. First Early and Rivers Bros. in hot beds during November, December, and January for winter and early spring tomatoes. Tomatoes that mature the latter part of April are considered early for Southern California.

Plant seed of the Stone variety during April, May, June and July, for the summer and fall crops, for canners and shippers.

For the home garden plant the Home Tomato and the Ponderosa, or Beefsteak.

The growing of tomatoes has progressed to enormous proportions. The acreage for shipping will count into the thousands, with a like amount for canners, and probably no less for local markets.

For shipping, only the perfect tomatoes must be selected, and these bring about \$500.00 per carload, and net the grower about \$135.00 per acre. A community growing for car lot shipment should plant not less than one hundred acres, and they should be ready for shipment from Sept. 15th to Feb. 1st, after which time the Southern tomatoes dominate the market.

For the cannery, the grower gets eight dollars a ton, and a good crop yields fifteen to twenty tons.

A & M First Early

See Page 7

A & M First Early For Home and Market. Let us give a little history of early tomatoes. Just twenty years ago the Early Richmond was the earliest and hardest tomato known to the local seed trade. It was wrinkled and sour, but of fairly large size throughout the winter. This was superseded by the Atlantic Prize, a smoother but smaller tomato. Chalk's Early Jewel came next, an excellent variety in all respects except it was too soft for shipping. The Earliana succeeded, and is yet advanced by many seedsmen as the best first early tomato. We introduced the A. & M. First Early in 1909, and from that time to the present it has superseded all other early varieties throughout Southern California, and is continually growing in popularity here and elsewhere. For a first early money-maker, it has no equal in the tomato line. We cannot give it too much praise. The growers are not looking for an earlier one. It is good enough. (Pkt. 10c) (oz. 50c) (¼ lb. \$1.50) (½ lb. \$2.75) (lb. \$5.00) postpaid.

Dr. E. L. Paulding writes: "Gentlemen: I just want to tell you how well your tomato has paid me. Last December I got some of the A. & M. Tomato seed of you. I have my own plan of forcing, but it is not all in forcing, I find, for I planted some other early sorts the same way, and served all alike. Yours was fully two weeks ahead of Earliana, if not more. I sold tomatoes for four weeks before I had any competition, getting all I asked for them, and having still the lead and the finest tomato in the local market."

Hummer Globe We consider this one of the finest tomatoes for the market gardeners. It is early, solid, smooth, good size, bright red, and enormously prolific with abundant foliage to protect the fruit from scalding. As a shipper it cannot be excelled, even by the popular Stone tomato. (Pkt. 5c) (oz. 30c) (¼ lb. \$1.00) (lb. \$3.50) postpaid.

Coreless A bright red, globe tomato; very desirable for the family garden, almost without seed or core. (Pkt. 5c) (oz. 40c) (¼ lb. \$1.25) (lb. \$4.00) postpaid.

To prevent blight, use Bordeaux Mixture after each rain. It is a good tonic for the vines.

READ PAGE 2. Get acquainted with us. Read what part we have acted to bring about the present prosperity of the gardeners of the Southwest. Nearly all of the **BIG THINGS** in vegetables that are being shipped to the far East are varieties we have introduced.

Rivers Bros. Perfect Early Tomato

(See Cover)

For twenty years we have searched for an early tomato that would eliminate every objectionable feature and possess all the desired qualities.

Rivers Bros. have found it, and are quite anxious that the growers become acquainted with it as quickly as possible, for it means more money to the grower and better tomatoes for the trade, and that is what Rivers Bros. want, for they are one of the largest distributors of produce in California, and they know what they want, and they will buy no other tomato while this variety is available. When calling our attention to it, they urged that we get it before the growers as quickly as possible, and that we cannot recommend it too highly nor too urgently.



Rivers Bros. Perfect Early Tomato—Actual Size

RIVERS BROS. PERFECT EARLY TOMATO

1. Is just the right size,—not too large.
2. The color is a shiny, bright red.
3. Every tomato smooth and perfect as the one shown in the picture.
4. It is nearly round, with an average diameter of about 3 inches.
5. Every tomato when ripe is red from blossom to the stem.
6. It ripens a few days later than the A. & M. FIRST EARLY.
7. It is enormously prolific, as the picture indicates.
8. It is hardy for fall or spring planting.
9. It has few seeds, is meaty, and of mild flavor.
10. It is a good shipper, and its uniform size makes it an easy packer, and shows up beautifully when the package is opened.
11. It is ideal for the canner because of its uniformly ideal size, solidity and absence of any tartness.
12. Our seed field showed the vine inclined to foliage more abundantly than the Earliana, but not so dense as the Stone.

If there are any other good qualities not mentioned above, the Rivers Bros. Perfect Early Tomato has them, for it is a perfect tomato. (Pkt. 10c) (oz. 50c) (¼ lb. \$1.50) (½ lb. \$2.75) (lb. \$5.00) postpaid.

Aggeler & Musser Seed Co.,
Los Angeles, Cal.

Gentlemen: We have long recognized the need of a more desirable early tomato. We believe this new tomato embodies all that can be desired in both an early and late, all round tomato.

We do not hesitate to recommend it to our growers, believing we are helping a good cause. Yours truly,

RIVERS BROS.

Ponderosa, or Beefsteak A very large, purple tomato with few seeds and of excellent flavor. Our strain is round and smooth,—not the usual oblong wrinkled kind. It is a favorite for the home garden, for which purpose we have on hand from March 1st until June extra fine, large, strong transplanted plants, which can be sent by mail to any address within the first, second and third mailing zones. (See list of plants, page 16. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.25) (½ lb. \$2.00) (lb. \$3.50) postpaid.



Mr. Walton and one plant of Home Tomato trimmed to fit the trellis. Mr. Walton counted 360 tomatoes above the size of a walnut

Home Tomato History of the Home Tomato—We are indebted to A. Brandenberger of Lankershim, for calling our attention to this wonderful tomato. In his hotbed one plant grew far ahead of all the others. It was quite distinct in having large foliage. Mr. Brandenberger set it in a four-inch pot, and when only eight inches high, it blossomed, and when twelve inches high these blossoms developed three nicely shaped tomatoes. This plant was exhibited in our window as a curiosity. It was transplanted to the ground and grew to cover an area of fourteen feet in diameter, loaded with tomatoes. In order to keep pure, Mr. Brandenberger propagated from cuttings off the original plant. The picture shows one of these cuttings grown at Artesia by Mr. Walton, who is pictured with the plant. This plant was pruned to fit the trellis, yet Mr. Walton counted 360 tomatoes above a walnut in size. Therefore we termed it the Home Tomato, on account of its earliness, delicious flavor, nearly round smooth shape, solid meat, and productiveness. Just the tomato for a home garden, where it can be trellised when space is limited. (Pkt. 10c) (oz. 50c) (¼ lb. \$1.50) (½ lb. \$2.75) (lb. \$5.00) postpaid.

SOME INTERESTING FACTS INCIDENTALLY LEARNED WHILE PROPAGATING THE HOME TOMATO

Cuttings from the original plants, which were grown in a sandy loam, planted in adobe and watered freely grew large irregularly shaped tomatoes quite acid in flavor, while cuttings from the same plant grown in sandy loam at Artesia even with some alkali, grew smooth, uniformly shaped tomatoes.

If soil will produce such varied results with cuttings, it is likely to make a similar difference with plants grown from seed, which would account for many disappointments.

Also if soil will produce such varied results with tomatoes, it may do likewise with many other vegetables and also fruits.

Golden Beauty A large yellow tomato of delicious flavor, and when preserved with a slight flavoring of lemon, is better than preserves made of any other tomato, because it lacks the strong tomato flavor. It is an excellent variety for salad. (Pkt. 5c) (oz. 35c) (¼ lb. \$1.00) postpaid.

Red Pear Shaped Used for preserving and spicing. (Pkt. 5c) (oz. 25c).

Grape Tomato It makes an attractive arbor vine with a profusion of delicious fruit for preserving. (Pkt. 5c).

Get a Home Canning Outfit, and can your surplus tomatoes. Put them up right and establish your brand.



A & M Main and Late Crop Tomato

For Market Near and Far---the Tomato for Canning

The New Improved Stone This is the most popular tomato in Southern California. Several thousand acres are planted to this variety exclusively for shipping to Eastern points after other tomatoes have been destroyed by frost. For this purpose the seed is planted about June 15th, and the tomato brought to full size about October 1st, after which it gradually ripens as wanted for shipping. The tomato is of good size, bright red, solid and smooth, enormously productive. Our seed was grown apart from any other variety and we confidently say no more perfect field of Stone Tomatoes ever grew anywhere than the field from which our seed was taken. (Pkt. 5c) (oz. 25c) (¼ lb. 80c) (½ lb. \$1.35) (lb. \$2.50) postpaid.



A Basket of John Baer

Bonnie Best Extra early, bright red, uniformly smooth, medium sized, solid and very prolific. It is very popular among growers of tomatoes throughout the United States and wherever it has been tried. (Pkt. 10c) (oz. 30c) (¼ lb. 90c) (½ lb. \$1.60) (lb. \$3.00) postpaid.

John Baer This extensively advertised tomato has become quite popular throughout the east and south, because it has come up to all that has been advertised. Our seed field shows it to be a very prolific, early, large, red, smooth, nearly globular tomato of delicious, mild flavor. (Pkt. 10c) (oz. 30c) (¼ lb. 90c) (½ lb. \$1.60) (lb. \$3.00) postpaid.

Earliana The plants are quite hardy, with rather slender branches and moderate growth, well set with fruits, nearly all of which ripen very early in the season. The tomatoes are bright red and close together in clusters of five to eight; all of medium size, averaging 2½ inches in diameter. (Pkt. 5c) (oz. 25c) (¼ lb. \$1.00) (lb. \$3.50) postpaid.

Dwarf Champion (Tree Tomato)—Has long been a favorite midsummer tomato. Pink in color, smooth and solid, making it a good shipping variety. This has proven very satisfactory in Arizona. Its dense foliage protects the fruit from sunburning. (Pkt. 5c) (oz. 25c) (¼ lb. 75c) (lb. \$2.50) postpaid.

San Jose Canner For several years growers in the San Joaquin Valley have recommended this tomato. We are slow to offer our trade any new thing that we are not thoroughly familiar with. Therefore we tried this tomato and can say it is far superior to the Stone for the market gardener's main crop, because it is just the tomato for the table. It is not sour, but a delicious meaty tomato. Just the thing that will sell ahead of the other fellows' at the market. It is large, prolific and deep red. (Pkt. 5c) (oz. 40c) (¼ lb. \$1.00) postpaid.

Dwarf Stone (Tree Tomato)—Large, red, smooth and solid. The stalk is upright, with dense foliage protecting the fruit from the heat of the sun. It is a desirable tomato to grow in the interior valleys. (Pkt. 5c) (oz. 25c) (¼ lb. 75c) (lb. \$2.50) postpaid.

Chalk's Early Jewel Excellent early tomato for home or nearby market; very prolific, red, smooth, and desirable size. Its mild flavor makes it desirable as a salad. (Pkt. 5c) (oz. 25c) (¼ lb. 75c) (lb. \$2.50) postpaid.

Yellow Egg Excellent for spicing and preserving. Small yellow egg-shaped tomato of mild flavor. (Pkt. 5c) (oz. 25c) postpaid.

Ground Cherry Grows like a tomato; fruits like a tomato, but the small fruit is enveloped with a husk. It is good for preserves. (Pkt. 5c) (oz. 30c).

A & M Turnips

See Bunch Goods, Page 25

Culture—(See page 16). Turnips may be sown broadcast on damp sandy soil or in drills as beets and carrots. Drill in rows ten inches apart, not too thick in the row. The Purple Top Globe variety is now leading in popularity because of its mild flavor and its adaptability to our summer climate.

Early Purple Top Strap-Leaf

A very popular variety in this section for either family or market use; large size, white, purple above ground; flesh fine grained. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.



White Flat Dutch

Early White Flat Dutch An early white-fleshed strap-leaved variety; for quick growth, mild flavor and excellent quality. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Early White Globe A large, round turnip, with sweet flesh. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Extra Early Purple-Top Milan

(Pkt. 5c) (oz. 15c) (¼ lb. 40c) (½ lb. 75c) (lb. \$1.25) prepaid.



Golden Ball or Orange Jelly

A rapid grower of excellent flavor; bright yellow color; good keeper and a superior table variety or for stock. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Improved Purple-Top Rutabaga

The best of the Swede Turnips. Very hardy and productive; flesh yellow, is very solid, sweet and well flavored. (Pkt. 5c) (oz. 10c) (¼ lb. 20c) (½ lb. 35c) (lb. 60c) postpaid.

Purple-Top Globe

Solid, very sweet, slow to get pithy. The very best variety for the summer season. Indeed, the best for any season, but slower to mature than the Strap-Leaf. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.

Snowball Next to the Purple-Top Globe in popularity, but preferred by many because of its beauty and excellent flavor. It is slow to get pithy in the summer, but always crisp during the winter. (Pkt. 5c) (oz. 15c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

14 Top Turnip

This is a good turnip, but prized chiefly for its tops, which are cooked as greens. Also used as pasture for stock. (Pkt. 5c) (oz. 10c) (¼ lb. 25c) (½ lb. 40c) (lb. 75c) postpaid.



Purple-Top Globe

The Danish Bortfelder The largest of all turnips attains the enormous size of twenty-four inches long and six inches in diameter, without getting pithy. Easy to gather because half its growth is above ground. It is succulent, tender, and as good as the smaller varieties for the table or for fattening stock. (Pkt. 5c) (oz. 15c) (¼ lb. 35c) (½ lb. 60c) (lb. \$1.00) postpaid.

P. H. Tock, R. 10, Gualala, Cal., Aug. 11, 1916: "I wish to say a word of commendation for your Purple Top Globe Turnip. They are the finest I ever saw, and others who have seen them say the same. We filled a 50-lb. apple box with 12 of them, which were taken to be exhibited in San Francisco. Here are dimensions of some of them without tops: Circumference 21½ in., 5½ lbs. weight. Another turnip weighed 4½ lbs., circumference 22½ in.; another 6¼ lbs., 27 inch circumference. Bortfelder are also growing well, but seem to be much slower to mature. Some are now about 22 in. long by about 3 inches in diameter, and still growing well."

NUMBER OF PLANTS TO AN ACRE

Set at regular distances apart

Distance apart.	No. plants	Distance apart.	No. plants	Distance apart.	No. plants
3 in. by 4 in.	522,720	4½ ft. by 4½ ft.	2,150	14 ft. by 14 ft.	222
4 in. by 4 in.	392,040	5 ft. by 1 ft.	8,712	15 ft. by 15 ft.	193
6 in. by 6 in.	174,240	5 ft. by 2 ft.	4,356	16 ft. by 16 ft.	170
1 ft. by 1 ft.	43,560	5 ft. by 3 ft.	3,904	16½ ft. by 16½ ft.	160
1½ ft. by 1½ ft.	19,360	5 ft. by 4 ft.	2,178	17 ft. by 17 ft.	150
2 ft. by 1 ft.	21,780	5 ft. by 5 ft.	1,742	18 ft. by 18 ft.	134
2 ft. by 2 ft.	10,890	5½ ft. by 5½ ft.	1,440	19 ft. by 19 ft.	120
2½ ft. by 2½ ft.	6,960	6 ft. by 6 ft.	1,200	20 ft. by 20 ft.	108
3 ft. by 1 ft.	14,520	6½ ft. by 6½ ft.	1,031	25 ft. by 25 ft.	69
3 ft. by 2 ft.	7,260	7 ft. by 7 ft.	888	30 ft. by 30 ft.	48
3 ft. by 3 ft.	4,840	8 ft. by 8 ft.	680	33 ft. by 33 ft.	40
3½ ft. by 3½ ft.	3,555	9 ft. by 9 ft.	537	40 ft. by 40 ft.	27
4 ft. by 1 ft.	10,890	10 ft. by 10 ft.	435	50 ft. by 50 ft.	17
4 ft. by 2 ft.	3,630	11 ft. by 11 ft.	360	60 ft. by 60 ft.	12
4 ft. by 4 ft.	2,722	12 ft. by 12 ft.	302	66 ft. by 66 ft.	10

Rule.—Multiply the distance in feet between the rows, by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant or hill; which divided into the number of square feet (43,560), will give the number of plants to the acre.

HINTS AND SUGGESTIONS

During the years just past, more than one thousand inquiries have come to us. No two required precisely the same answer, because no two inquiries expressed the same conditions.

We have endeavored in this catalog to give information that would apply to almost every condition presented to us during the year, but when you cannot find the answer to your particular case, write us about it.

We want you to excel in your line. You can excel if you use A. & M. SEEDS and follow instructions given in this book.

If you have but a city lot with a cottage upon it, you can within six months make the place a cozy home with flowers for beauty, and vegetables and berries sufficient to supply the table for the average family.

If you have one acre of ground, you can supply the table and sell enough to pay the grocery bill each month. One man with a little aid from his family can farm as much as one acre along with his daily work, and enjoy the healthful recreation.

FIVE ACRES AND INDEPENDENCE

If you have five acres of good soil, and if you are an experienced gardener, you can make better than wages on your five acres if you will follow instructions in this book, so that you will plant the right variety at the right time. When mature, put up in clean, attractive shape, and build up a market by giving regular, dependable service.

If you have fifty acres of good garden soil near a city, be a gardener for the city market, and grow every variety of vegetables.

If you have one hundred acres of good garden soil, grow by contract for the canner, or grow at the right season the things the shippers want, and grow carloads of them.

Marketing the Small Crop at Home

READ CAREFULLY

THE FOLLOWING ARTICLE TELLS WHAT OTHERS ARE DOING, AND MAY SUGGEST WHAT YOU MAY DO TO ADD TO YOUR REVENUE.

If your home is situated by one of the many highways, where hundreds and even thousands of autos travel each day, you will have a very convenient market for your produce.

If you have watched the growth of the many fruit, vegetable and flower stands by the wayside, you were interested and sometimes amused at the assortment of produce offered, and how the advertisements on the bulletins announce the commodities. For example, many read as follows:

(Read rapidly as you would when passing in an auto.)

1.	2.	3.	4.	5.	6.
Fruit	Wood, Horse	Sweet Cider	Straw	Turkeys	Stop! Eat!
Fryers	Fresh Cow	Apples	Logan	Ducks	Melons
Fat Pigs	Buggy	Melons	Ras	Fens	Peaches
Fresh Eggs	Rabbits	Pigs	Black	Pigs	Pigs
Grapes	Eggs	Fryers	Honey	Eggs	Fryers



A MARKET PLACE BY THE WAYSIDE

These signs indicate the thrift of the rancher that will have these various commodities for sale, and prosperity is in evidence all about the place.

But the wayside store has advanced far beyond the bulletin board. It is now a full-fledged Fruit, Flower and Vegetable store.

Study the above picture of a Fruit and Vegetable Stand along the San Bernardino Boulevard, belonging to Mr. Charles Richardson, who is obliged to employ constantly two clerks whose sole business is to wait on customers. It is not unusual to see as many as ten autos in front of this place at one time. His commodities consist of anything in season, and everything the best.

Watermelons	Grapes	Casabas	Cantaloupes
Sweet Potatoes	Corn	Squash	Egg Plant
Apples	Okra	Roselle	Pumpkins
Peaches	Limas	Plums	Beans
Tomatoes	Quinces	Eggs	Peas
Potatoes	Pears	Fryers	Peppers

Other stands are less pretentious. Here and there only one or two things may be offered, whatever the party may have in season. These places are sometimes attended by a child, the wife, aged or invalid person, and thus managed with the least inconvenience and expense to the rancher.

Read every page of this catalog. Then take good care of it, for you will need it from time to time throughout the year.

Owing to the scarcity of material for the manufacture of paper, it is not improbable that it will be impractical to publish a catalog next season.

Therefore keep this book until you get another.

These stores are no longer supplied alone by the rancher on whose place they are located, but by neighbors who do not live along the highway, and thus a community of interests is advanced producing a market for a neighborhood, adding to the general welfare. Therefore we suggest that each community living within each half mile or mile of highway, get together, select a cross-roads corner or other shaded place, build an appropriate and attractive rustic or wicker house with suitable fixtures, appoint a keeper, and each one supply the particular articles they may have in season.

A system of co-operation will soon determine what each one may set about to grow so that the store may be regularly and judiciously supplied. When there is a surplus of anything, let the store manager arrange to dispose of it with some commission house or dealer in the city. In this manner of co-operation a dozen ranchers may collectively have enough to market, while one man individually will have too little to be worth while, and thus many dollars worth of good things are sold which otherwise would be wasted, the value of which would total many hundreds of dollars.

Read this catalog carefully, that you may know what to plant each month, in order that the store may be regularly supplied. In that way a dependable trade will be established. People who pass regularly will learn to depend upon this store for their regular supply of things in your line. But you should aim to have a constant stock of everything in season.

Ferguson's Nitrogen Fixing Bacteria and Farmogerm

"Living Nitrate Factories for Field and Garden."

Four ounces properly applied to the seed for an acre of ground will put as much nitrates into the soil as can be obtained in two tons of high grade commercial fertilizer, with less labor and less expense.

This means profitable crops on poor or sandy soils, restoration of wornout lands, increased crops on good lands.

WHAT THESE NITROGEN-FIXING BACTERIA WILL DO

1. These bacteria furnish the best and most valuable fertilizer in the world, in unlimited quantities and at only a nominal cost of money or labor.

2. They take nitrogen from the air, convert it into nitrates available for plant food, and then give it to the plant. In return the plant supplies them with carbo-hydrates, thereby enabling the bacteria to grow and reproduce themselves at an almost incredible rate.

3. They increase crops, under ordinary conditions from 25% to 60%, with no extra work. They make possible profitable crops on absolutely barren soil, such as sea sand or even coal ashes. They also improve the crops on good farm land.

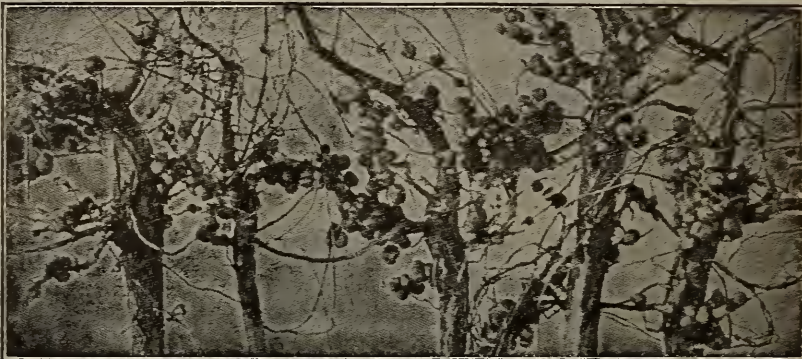
4. They store up on the roots of plants the excess nitrates which the plant does not use. This is done in the form of nodules, varying in size from a mere speck to about a half inch in diameter. Official reports show this reserve supply of nitrates thus stored in the ground has been in some tested cases equal to 850 pounds per acre, or more nitrates than are contained in several tons of the average commercial fertilizer.

5. They gather moisture from the air at the same time they gather nitrogen, and also make it available for the future use of plants. This enables an inoculated field to withstand some droughts or dry seasons that would otherwise destroy the crop.

6. They work night and day making money for the farmer.

Do not apply the bacteria to the seed in the sunshine or expose to the sunshine to dry after mixing. Remember that strong sunshine kills every form of bacteria. The best results are obtained when planting is done in the early morning or late afternoon or on cloudy days. If you drill the seed in you can plant any time.

Nitrogen-Fixing Bacteria is no longer an experiment, but an established fact. There are instances where its benefits were not apparent. This is due either to the fact that the soil was already inoculated, as with a crop of alfalfa or other legumes, or the soil contained alkali that is deadly to the nitrogen germ.



Showing Nitrogen Bacteria

Available for Clovers, Alfalfa, Beans, Peas, Vetches, Lupines, Soy Beans, Burr Clover, Peanuts and all Other Legumes.

Ferguson's Composite Culture—(Prices prepaid)

One acre size	\$ 2.00
Five acre size	6.00
Garden size .....	.50
Fifty acre size	55.00
One hundred acre size	100.00

Farmogerm (Prices prepaid)

One acre size	\$ 2.00
Five acre size	6.00
Garden size .....	.50
Fifty acre size	55.00
One hundred acre size	100.00

Fertilizers

All Prices f. o. b. Here

GYPSUM (What It Does)

"It has an indirect fertilizing value which is mainly due to the fact that it has the power of changing unavailable forms of plant-food, especially potash, into available forms.

"A heavy dressing of Gypsum will greatly improve any heavy soil, rendering it lighter and more easily cultivated, and relieve the tendency to crust and bake."

Bradley Lawn Fertilizer Price—(\$2.50 per 100 lbs.) (50 lbs. \$1.25).

A. C. W. Lawn Fertilizer Price—(\$2.50 per 100 lbs.).

Sheep Manure Price—(\$1.75 per 100 lbs.)

Leaf Mould Fine for mixing in soil for potting house plants. Per sack 75c.

Armonr's Plant and Fern Food

Excellent fertilizer for house plants. An odorless fertilizer. Put up in 2½-lb. cans. Per can, 25c. Add 15c for packing and postage.

We have always on hand the best fertilizers for each practical purpose. For lawns, orchards, berries and vegetables. Consult us when you want fertilizer.

Nitrate of Lime Runs 13% Nitrogen in a form that is immediately available to the growing tree. This Nitrogen is extracted from the air by means of electricity and put into Lime. In casks weighing about two hundred and fifty pounds. Per cask, \$7.50.

Nitrate of Soda 15% Nitrogen also immediately available to the crop. Not advisable to get all your nitrogen from this source on account of the Soda content. Price fluctuates. Write for price, stating quantity wanted.

Permanent pasture for alkaline soil is not so difficult to establish where the roots can penetrate to moisture. The native grasses for this purpose are **Bermuda** or **Devil Grass**, and **Salt Grass**. The imported grasses and clovers for this condition are **Sudan Grass**, **Teff Grass**, and **Melilotus Alba**. Sudan, however, will not survive the winter season.

Permanent Pasture for Meadows Not Alkaline

There are many grasses and clovers suitable to this condition. The hardy grasses are **Italian Rye**, **Australian Rye**, **Paspalum Dilatatum**, and **Rhodes Grass**, the native **Crab Grass**, **Bermuda Grass**, and many others, some of which may be difficult to eradicate, and such should be avoided and more attention should be given to planting mixtures that will give the longest period and greatest abundance of green pasture.

Super Phosphate 17½% available Phosphoric Acid. Most readily available form and about two-thirds soluble. Per 100 lbs., \$2.50.

Bone Meal 3¼% Nitrogen and 16% Phosphoric Acid. Neither of these two elements are immediate in their action. If put in soil in the Fall some results will show the following Spring. Slow but sure. Per 100 lbs., \$2.50.

Tankage 5% Nitrogen and 5% Phosphoric Acid. The nitrogen content will show results in two to three weeks. The Phosphoric Acid is from Bone, results as stated above. This is a Paking House product. Per 100 lbs., \$2.75.

Dried Blood 12 to 13% Nitrogen. The most readily available form of organic Nitrogen. Quick and lasting in effects. Packing House product. Per 100 lbs., \$4.00.

No. 4 Mixed Fertilizer 4% Nitrogen, 10% Phosphoric Acid, 1% Potash. A complete fertilizer containing all the ingredients necessary for a quick active growth. Per 100 lbs., \$2.50.

LawnFertilizer 2½% Nitrogen, 5% Phosphoric Acid, 1% Potash. A complete fertilizer that will give quick and very lasting results; if applied twice a year will keep your lawn green all the time. 100 lbs. to 1500 square feet. Per 100 lbs., \$2.50.

Pure Fish Fertilizer 7% Nitrogen, 4% Phosphoric Acid. Purely organic, an excellent fertilizer for all purposes for an active green growth good for two full crops. Per 100 lbs., \$3.50.

On all **Fertilizers** write for prices on any quantity up to car loads.

A & M Greatest Soil Renovators

The sowing of nitrogen-gathering plants for green manuring has become popular because of the excellent results attained and because of its cheapness as a fertilizer that its use is almost universal not only for orchards, but for fields, particularly where melons are to be planted.

If your land is sloping, you need a cover crop to prevent eroding during the rainy season.

If your land is lumpy and dry, lacking life, it needs humus and nitrogen.

If your soil is sandy and fails to retain moisture, it lacks humus and nitrogen.

If your soil is of clay and bakes hard and crusts readily, it needs humus and nitrogen.

If you have just taken up a homestead, your soil is new and not in condition for general cropping. Therefore you want to do the best thing you can to put the soil into good chemical and physical condition as quickly as possible. To do so, plow just as soon as you can after the first rain of the season and harrow soon after each rain until ready to plant. If during fall or early spring, plant hardy legumes for pasture and green manuring to be plowed under for a summer crop. Plant Melilotus, Burr Clover or Vetch. If for a permanent pasture, plant alfalfa. These are all nitrogen-gathering crops and will enrich your soil with nitrogen and humus, but to get the best results inoculate the seed with Nitrogen-Bacteria.

If your planting is delayed until spring or summer, plant Cow Peas, Soja, the Broad Windsor Beans or the Tepary Bean. (See page 24.)

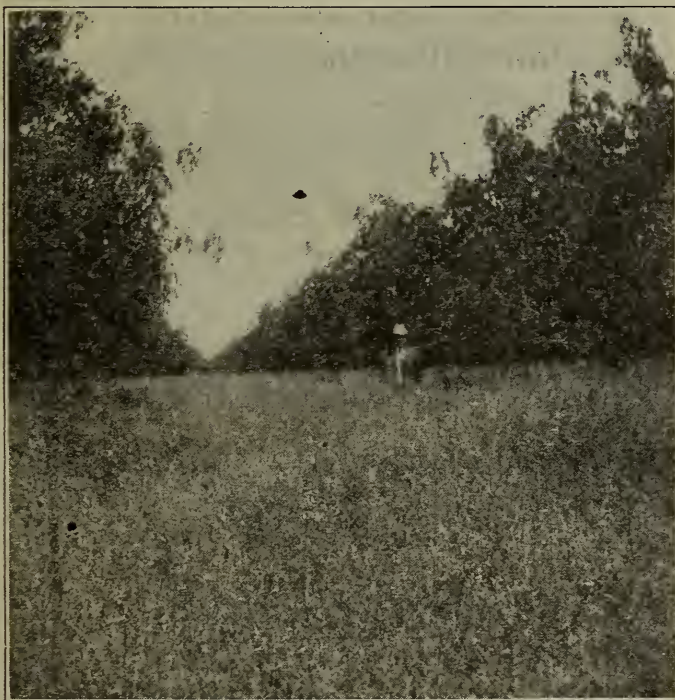
Melilotus Indica

(Write for Circular)

So much has been written about Melilotus Indica, that it is unnecessary to describe it here, except to say it is well established as the best soil renovator now available for the use of the California orchardist, because of its hardiness as a winter growing crop. We are headquarters for this seed. The price fluctuates, and therefore we ask you to write us for price at the time you want the seed. It is ready for delivery as early as August.

The Citrus Experiment Station at Riverside, Cal., has recently issued a valuable pamphlet on Melilotus Indica, written by Mr. W. M. Mertt, in which is given the details of experiments covering five years.

Per lb. 20c, postpaid. Write for quantity price.



Melilotus Indica (yellow bloom)

Melilotus Alba (White Blooming Melilotus) (Bokhara).—This is a valuable addition to the farm as a forage crop. When quite young, it may be pastured or cut and cured for hay. This should be done just before the bloom appears. It is hardier than alfalfa, more drouth-resistant, and better for renovating the soil. It may be cut twice the first season and three or four times the second season, yielding 2500 to 3000 lbs. of hay each cutting. It is as easy as alfalfa to eradicate, is biennial. Hence it must be seeded every second year. On account of its hardiness to resist extreme cold, heat and drouth it is grown largely in the middle west for pasture. It is highly recommended by the department of agriculture. Price—Per (lb. 40c) (by mail 50c). Write for quantity price.



Winter Vetch

vegetables. 20c per lb., post-paid. Write for quantity price.

Burr Clover

The native Clover, and one of the best nitrogen-gathering crops and very satisfactory for orchards. There is an increasing demand for Burr Clover, and the seed is very scarce and hard to obtain. It is the very best cover crop for poor or dry land, as it needs but little moisture. If your grazing land lacks native grasses, plant Burr Clover; it re-seeds itself, starting to grow with the first rain, and continues growing far into the dry season. Per lb. 25c postpaid.

Broad Windsor

Sometimes called Horse Bean. Grows

upright on a single stem, bearing a profusion of large well-filled pods. The roots are enormously productive of nitrogen. We especially recommend it to hog ranchers. It withstands 28 degrees of temperature. Per lb. 25c postpaid.

Soja Beans (See page 24.)

Excellent for summer forage for hogs or to plow under. 25c per lb., postpaid. Write for quantity price.

GROW SOJA BEANS

Does it surprise you to know that \$9,000,000 worth of oil of the Soja bean is imported annually from the Orient, and used mostly in paint?

White Canadian and Blue Peas

These excellent soil renovators are well suited to our local conditions. They are hardy enough to withstand the rainy season. They absorb alkali if not too excessive. A luxuriant crop can be grown when planted after January 1st. Per lb. 20c postpaid.

Vetch Should be sown early, August or September, to secure a good growth before the cold weather of January. While it is very hardy, it requires a longer season than some of the other crops. It is a very satisfactory crop for renovating the soil, because it is a great nitrogen-gathering plant.

Sown with barley or oats it is one of the best crops for dairymen to grow for pasture. 20c per lb., postpaid. Write for quantity price.

Whip-Poor-Will Cow Peas

This Southern Cow Pea has proven to be very satisfactory in this climate. It is a summer forage crop, or just the thing to grow in the late summer to plow under to enrich the soil for a crop of winter



Whip-poor-will cow peas

Clovers

Write for quantity prices on all varieties



Alfalfa Our standard clover is probably the most reliable source of income of any of our field crops. If you have horses you want alfalfa. If you have cattle, hogs or chickens alfalfa is the main food. You cannot ranch successfully without alfalfa. Write for samples and prices on quantity as the market is constantly changing. **Chilian, or Common, Alfalfa.**—(Per lb. 25c) (by mail 35c).

Peruvian

Write for circular. So quickly has the Peruvian Alfalfa become popular that last year, only the sixth season since its introduction, we sold more seed of the Peruvian than of the Common. Once a grower of Peruvian, al-

ways a grower. Many customers that bought last season have already engaged their supply for this season.

Mr. McClure of Clearwater, says the dairyman will pay a higher price for his Peruvian, and will not take the common when the other is obtainable.

J. H. Williams of Compton, Calif., planted last January 40 acres of Peruvian Alfalfa, and says that in the future he will plant no other kind.

He is just now cutting the fifth crop from the 40 acres, and he would be glad to have us refer any one to him, as he can highly recommend Peruvian Alfalfa.

Spangler Bros. of Bakersfield, say: "We have been cutting our Peruvian alfalfa all winter, while the common was dormant from November until April."

"I tried 10 lbs. of seed from you of Peruvian Alfalfa last year, and it certainly does stand colder weather than the common alfalfa."—J. H. Hall, Sutter Co., Cal.

Eradicate Johnson Grass—Mr. King, manager of one of the Bixby ranches, says he prefers planting his Peruvian Alfalfa during December. It starts growing at once and gets a good growth before Bermuda or Johnson starts to growing. The alfalfa by that time shades and smothers the Bermuda and Johnson so effectually that it is nearly eradicated.

The repeat orders and the testimonials we are receiving from those who were fortunate enough to obtain some of this seed during the last six years, are ample proof of its superiority over other varieties. (Per lb. 45c postpaid) (100 lbs. \$28.00) f. o. b. here.

Caution.—Last season we learned that a grower here and there claimed there was no difference between the Peruvian and Common Alfalfa. We investigated each case that came to our attention and discovered that the seed was purchased from an unreliable and irresponsible source, and that they got the Common Alfalfa instead.

We have our buyer (himself a grower) on the ground the year round. He knows each grower of seed and the variety grown. This knowledge minimizes the possibility of error.

Turkestan Is recommended by the Department of Agriculture as a drought-resistant variety. This claim we do not dispute, but we do decidedly announce that it is not suited to the climatic conditions of Southern California, because it grows only four or five months of the year.

Red Clover This is the variety grown extensively in the Eastern states, generally mixed with Timothy which adds greatly to its value for hay. Price—Per (lb. 40c postpaid) (10 lbs. \$2.50) f. o. b. here. Write for quantity price.

Alsike or Swedish Clover This is one of the hardiest varieties known. It is perennial and does not winter kill. It will do better on moist land than any other variety of clover, and is suitable for either hay or pasture. When sown with other grasses, it forms a thick undergrowth and greatly increases the yield. Write for quantity price. (Price—Per (lb. 30c) (by mail 40c).

A & M Grasses

Rhodes Grass

This grass has been thoroughly tested in Australia and Florida where it grows luxuriantly on the sandy lands near the Coast, yielding ten tons of hay per acre. It is comparable to the Timothy so highly valued in the Eastern states.

Prof. Maiden, the Government Botanist of Australia, says of the Rhodes Grass: "It is ideal for ensilage. It yields five tons per acre."

"It smothers Nut Grass. It is a good grass for green food. It is an excellent grass for hay. It is a rapid grower. It has fibrous roots so that it is not likely to be a nuisance, since it can readily be eradicated if desired. The seeds germinate readily. It runs six to eight feet, and then grows erect. It is very palatable to stock. If it has any objectionable features I do not know of them, and, therefore, I have recommended experiments with it in many parts of the State. Experiments that have already been made, prove that it will stand the fierceness of frosts, and the seed has not been found at all injurious to stock; the animals like it."

Good in Arizona

Mr. J. J. Thorber, of the Arizona Experiment Station, says: "I have had Rhodes Grass under observation for several years. It succeeds beautifully in our heavy clay loam soils and even in sandy or gravelly soils. Its growth is marvelous under our conditions."

It withstands to a remarkable degree extremes of moisture and drought.

Mr. Conrad Schlender, Lee County, Florida, writes us: "Planted seed of Rhodes Grass in the fall of 1911 and in 60 days it was ready for the mower. During 1912 I got eight cuttings and that on rather poor, sandy soil. Average height of Rhodes Grass is three feet, and on fertile spots, up to my chin. I cut it when in bloom."

Sow the seed broadcast at the rate of ten pounds per acre, about corn-planting time, on well-pulverized soil, and harrow lightly.

While the principal value of the grass is for grazing it is also used for hay, giving two or three cuttings of about one ton each per acre. The hay is of excellent quality. It bears severe drought and moderate frost without injury, but is easily killed by plowing late in the season.

Good in Texas

It has proven the most satisfactory hay maker ever introduced in the Lower Rio Grande Valley. It has not failed to produce one ton per acre per month. I will sow it in my alfalfa field so that it will soon choke out the alfalfa and the field will consist of Rhodes Grass only. It is a weed exterminator.

Yours truly,

E. E. Evans.

(Per lb. \$1.25) postpaid (10 lbs. \$10.00) f. o. b. here.

Paspalum Dilatatum From Australia. Just the thing to reclaim marsh-lands, and equally good to survive drought. It has been to the Australian dairyman what alfalfa is to the California dairyman. It survives extreme cold, and in Southern California it grows the year round, thus insuring green all winter.

Mr. Sullivan, dairyman of El Monte, planted it on land too wet and soft to allow his cattle to pasture upon it. Alfalfa would not survive. He sowed Paspalum on ridges between alfalfa checks. The first season only demonstrated it would grow throughout the winter. The second season proved its worth. It had seeded to a wonderful degree. The seed grew, taking root among the weeds and devil grass, choking out everything in its way. The dense tufts of grass made a thick mat capable of supporting the cattle. Mr. Sullivan cut it three times during the season, each time getting about one ton of dry hay to the acre. The stock relish it fully as well as alfalfa. It makes a fine hay free from any wood. It is as easy to eradicate as timothy or any other bunch grass. Seven pounds are required to plant an acre. Price—(\$1.00 per lb. prepaid). Write for quantity price.

Italian Rye Grass Excellent for damp land; grows rapidly; makes good hay, but is at its best in moist low lands. It grows continuously until allowed to run to seed. Dairymen having moist land should avail themselves of this valuable pasture. Price—(Per lb. 25c prepaid) (100 lb. \$10.00) f. o. b. here. Write for quantity price.

Australian Rye Grass Very similar to Italian Rye Grass, but will resist more drought. It survives the dry season and starts new growth when the rains set in. Price—Per (lb. 25c prepaid) (100 lbs. \$10.00) f. o. b. here. Write for quantity price.

Timothy Does very well in moist land and will mature a fine crop of hay in 110 days from seed. We do not recommend it for Southern California. Per lb. 25c prepaid. Write for quantity price.

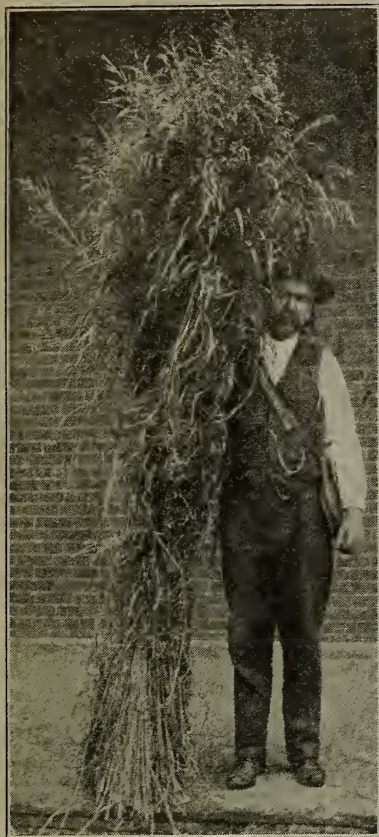
Bermuda Grass Excellent for pasture meadows, but a pest on the farm or in the garden. Withstands drought and grows luxuriantly when irrigated. Sow 10 pounds per acre. Will stand more pasturing than any other grass we know of. Price—Per (lb. 65c) postpaid. Write for quantity price.

PERMANENT PASTURE

It is difficult to establish a permanent pasture on arid uplands. About the best that can be accomplished is with the native grasses or clovers.—**Alfalaria, Burr Clover, Melilotus Alba, Fox-tail, Wild Oats,** and a few others. These will not survive the season of drouth, but re-seed themselves. Nor do we know of any imported grasses that will satisfactorily endure on mesa lands through our long periods without rain. The **Australian Salt Bush** (*Atriplex Semibaccatum*) comes nearer to being an all year pasture for this condition than any we know of, but while stock relish it when young and tender, they must be starved into eating it when it becomes stale and the tender foliage ceases to grow.

A & M Sudan Grass

(Write for Circular)



Sudan Grass

"Nothing like it. Grew 8 ft. in eight weeks from seed."—C. E. Trapp

CULTURE.—Sudan grass may be grown either drilled, in cultivated rows, or broadcast. If planted in cultivated rows, the rows should be as close as possible and yet permit of easy cultivation. In 30-inch rows, 3 to 4 pounds of seed per acre is ample, and under conditions of low rainfall this method is recommended. Under irrigation, 18-inch rows are preferable and 4 to 6 pounds of seed per acre is sufficient.

Mr. Young, of Thermal, says: "Hereafter I will sow broadcast for finer hay. My soil is rich, and it grows too rank when drilled in rows."

For broadcasting, 20 pounds of seed per acre should be used. The seed should not be sown until the ground is warm, that is about the time for planting corn. The young plants will withstand slight frosts without injury.

It grows luxuriantly on strong alkali soils. On the ranch of the Montana Land Co., near Alamitos, Sudan Grass planted in mid-summer on alkali land grew luxuriantly together with alkali weed, and where no other weed would grow. It is difficult, however, to get a good start under such conditions, but once started it grows profusely.

J. E. Hathaway planted on strong alkali soil seed of Rhodes, Natal, Paspalum, Tunis, Tef, and Sudan. The last two grew perfectly, as though they were in their proper soil, while not one of the others made any growth. The Sudan and Tef also smothered the native weeds that grew all about.

SUDAN GRASS FOR PASTURE

"The foregoing points are not all the best features of this new grass. In the months of August and September, when all other grass is dry, then is the time that Sudan shines in all its beauty, and by having it fenced off in small lots, I am confident that it will yield food for five times as much stock as any other forage plant will, without irrigation. For milch cows and hogs, I can't think of a better and more abundant pasture than Sudan. I believe it will solve the hay proposition as nothing else can or will do in this climate."

D. R. Ruble, Salem, Ore.

Another good way to use Sudan Grass is offered by Mr. Young, who says he sowed Sudan in his worn out alfalfa field and secured most gratifying results in as much as it produced an abundance of hay and pasture during the summer months. The mixture of Sudan and alfalfa was a good milk producing combination. Mr. Young advises its use in run down alfalfa fields instead of barley.

(Per lb. 30c) postpaid. Write for quantity price.

Natal Grass

Last year we had many inquiries for seed of Natal Grass. We studied the subject and learned that it is being grown extensively in Florida; that only three years ago there was about 40 acres of Natal hay growing in Lake Co., Fla., but now there is more than 6000 acres growing in that county.

We concluded it must have merit, and therefore we have added it to the list of grasses offered in this book, with the following description by a large grower in Florida.

This grass is an annual grass from South Africa which is now commonly grown in many tropical and semi-tropical countries. Sometimes it is called "Australian Redtop," but is not related to the true redtop. The seeds are borne in loose pink downy branching sprays, the color of which fades to almost white when the seed is matured.

If the seed is sown about May 1, the first crop of hay will be ready for harvesting about July 15. Natal grass requires about eighty to eighty-five days from seeding to maturity under favorable conditions.

(Per lb. \$1.00) postpaid. Write for quantity price.

A & M Parra Grass



Parra Grass the second season without irrigation, grown in a vacant lot in the City of Los Angeles

every stem took root when planted. It multiplies rapidly. The experimental patch on our trial ground demonstrated it will withstand considerable alkali. If well watered until the latter part of June it will remain green the balance of the dry season, and if cut as late as August it stools wonderfully and grows without irrigation. With the same amount of irrigation usually given alfalfa, Parra Grass may be cut as often and yield much more hay. There can be no better pasture for the dry season, with or without irrigation, provided it has a good start.

It is just the crop for overflow lands because it will grow under water, thus establishing a good pasture by the time the land is dry enough to turn the stock onto it.

Mr. Horace Metcalf, who has been growing it for five years in Los Angeles County, and is familiar with it in Mexico, states: "It does not go to seed in this climate. It may be cut three times in one season and produce twenty tons of hay per acre for the season. It cannot become a pest on dry land, but on wet land it would be difficult to destroy it. It cannot be drowned or destroyed by overflow." It is just the thing for damp or irrigated lands. We cannot recommend it too highly for a permanent pasture on damp land.

Parra Grass for Gun Clubs Just the thing to plant around the edges of lakes during the summer as the water recedes. It will take root and grow luxuriantly by the time the lakes are again flooded, and continue to grow under water, thus making a permanent and ever-increasing pasture for ducks, wild or tame.

We offer a limited quantity at 25c for 25 stems by mail postpaid, 100 stems for 75c postpaid, 1000 stems \$4.00 f. o. b. Los Angeles. Weight of 1000 is about 25 lbs.

Alfilaria.—(Erodium Cicutarium) One of the most nutritious of plants. All stock relish it, even prefer it to most any other forage. Like Burr Clover, it is native to Southern California, and would be more prevalent were it not so difficult to gather the seed. It requires five pounds of seed to plant one acre. A few pounds of seed scattered over a range would within two years have the place well covered with alfilaria. Price—Per lb. 85c prepaid. Write for quantity price.

Salt Bush (Atriplex Semibaccatum) This is the common Salt Bush; will grow on any soil, even in the strongest alkali, and will thrive luxuriantly for years without rain, absorbing its moisture from the air. Plant the seed on any waste land and turn the place into profit. All stock eat the tender growth in the spring, but do not relish the matured growth in the fall. It may be easily eradicated by one plowing. Price—Per lb. 85c postpaid. Write for quantity price.

The best way to get a stand of Salt Bush is to sow broadcast the seed on sod or stubble during the months of January and February.

Orchard Grass Price—Per lb. 40c prepaid. Write for quantity price.

A Word About Grasses

Each one of the grasses offered on these pages requires certain conditions of soil and climate, but each one is valuable where conditions are favorable to its growth. But for general conditions such as we have throughout the southwest we have placed **Sudan Grass** at the head of the list. It is claimed Rhodes Grass will continue growing with less moisture than any of the other grasses except Salt Bush. For permanent all year pasture plant Paspalum, Italian and Perennial Rye grasses. When in doubt write us about it.

If you want a mixture for permanent pasture write us stating your conditions.

Non-Saccharine Crops for Grain and Forage

All prices are subject to market change
If large quantities are wanted by mail add the necessary postage. See inside front cover page.



Egyptian Corn

Egyptian Corn Like the preceding fodder crops, it is grown chiefly for the foliage to pasture when young, but yields largely of grain. The chief merit of these fodder crops is in their hardness to produce fodder and grain with almost no rainfall or irrigation. Sow eight pounds per acre drilled. **Price—(Per lb. 20c prepaid) (10 lbs. \$1.00) f. o. b. here. Write for quantity price.**

Kaffir Corn Grows similar to the Milo Maize except the head is upright instead of hanging over like Milo Maize and Egyptian Corn. It will yield two to three thousand pounds of grain per acre. Sow 8 pounds of seed per acre drilled. **Price—(Per lb. 20c prepaid) (10 lbs. \$1.00) f. o. b. here. Write for quantity price.**

Feterita No new thing is offered in this catalog until after it has been thoroughly tried. That is why we receive so many favorable testimonials each year. But of the many non-saccharine sorghums offered in this book none have proven more popular from the start than Feterita, on account of its astonishing growth after it becomes well rooted. Every testimonial received expresses astonishment at its rapid growth.

The grain has about the same feeding quality as Egyptian Corn or Milo Maize; yields from two to three tons of grain per acre. It is bothered very little by birds, as they are unable to shell it out and waste it. The seed is more susceptible to cold than other sorghums, therefore should not be planted so early, nor should it be planted in cold soil.

The Riverside and Orange County growers report it far ahead of the common non-saccharine crops. Mr. Clutter, of the Antelope Valley is foremost in its praise. He says that for both the excellence and abundance of forage it cannot be excelled when cut young, and for grain it is equal to any quality, but ahead of others for yield.



Feterita

One man can attend to the planting, irrigation, and cultivation of 160 acres, paying only for the harvesting and threshing. The cash outlay to grow 160 acres is approximately \$300.00. The gross returns, estimating one ton of seed per acre which sold last season for \$37.00 per ton, would be \$5,920.00. This is a very conservative estimate.

The second growth stools wonderfully, producing several tons of excellent forage for pasture or for ensilage after the seed has been harvested. It thrives luxuriantly on soil so alkaline that field corn will not thrive. The heads are upright. Cultivate as Kaffir Corn. Eight pounds of seed is sufficient to plant an acre drilled. **Price—(Per lb. 25c prepaid) (10 lbs. \$1.00) f. o. b. here. Write for quantity price.**

Sorghum The first thing a good California farmer will do when settling upon a new homestead is to plant sorghum to supply feed for his stock. Within four weeks from the time of planting he can begin to cut fodder. It is claimed that as high as 10 tons of green fodder have been grown per acre each cutting. It can be cut several times during the season if not allowed to get too high, and makes a good sweet hay. Sow 100 pounds per acre broadcast for best results. **Price—(Per lb. 20c prepaid) (10 lbs. \$1.00) f. o. b. here. Write for quantity price.**

A Word About Sorghum

Mr. Atmore, of Piru, Cal., is authority for the following statement: "For more than twenty years I have planted sorghum about the first of April. About the time it is well seeded I have some hogs ready to fatten for the market. I turn the hogs into the field of sorghum every day toward evening. In this way they eat all they want without waste, and about the time it is all gone the hogs are ready for market. This is all the feed they get for fattening. Saves me much labor, and the exercise is healthful for the hogs. I sow one acre of sorghum for every twenty hogs."

Texas Seeded Ribbon Cane, also called Gooseneck Cane

It is usually planted in rows 3½ feet apart, using from 6 to 10 pounds of seed per acre. Grows from 10 to 15 feet high. Texas Seeded Ribbon Cane is one of the best crops that can be grown to use as ensilage on account of the enormous yield it makes per acre. Mr. Geo. L. Miller, of the 101 Ranch, states as follows: "We have experimented on a large scale with every variety of Kaffir, Milo and Sorghums. Milo Maize has done well, but the stalks and fodder has not the feeding value it should have. Sorghums seem to be the best and surest and have better feeding value than any of the other forage crops."

Of all the varieties of Sorghums grown, there are none that can compare in yield with the Seeded Ribbon Cane. It has produced a yield of 55.98 TONS OF GREEN WEIGHT PER ACRE.

"We recommend that all farmers should plant 10 to 15 acres or as much more of the Seeded Ribbon Cane as they have stock to feed."

"Land is too valuable to get from 5 to 10 tons of silage from, when the same acres can yield 30 to 35 tons per acre with same expense. We have received these results and any other farmer can do the same." **Per lb. 20c, postpaid. Write for quantity price.**

Red Top Sorghum This is considered the best variety of all the sorghums. Because of its luxuriant foliage, abundant stooling of tall succulent canes, and large percentage of saccharine it is better for forage or ensilage, and the large compact heads of grain which readily separate from the chaff adds to its value as food for stock. Wherever the Red Top is known, its popularity supersedes all other sorghums. **Per lb. 20c, postpaid. Write for quantity price.**

Amber Cane This variety of sorghum has long been the favorite in this section, and has always proven highly satisfactory because of its luxuriant foliage, succulency and enormous tonnage of rich fodder. **Per lb. 20c, postpaid. Write for quantity price.**

Dwarf Milo Maize is much preferred to the tall variety because it stools wonderfully and matures a large head of seed on each stool, producing as much as 3500 pounds of grain per acre, and the stalk being shorter and having more foliage, makes it more desirable for fodder. Dairymen find that the cows will give more and richer milk when fed on it. It is the right crop to plant in young orchards because it will not shade the small trees.

We have Dwarf Milo Maize grown from pedigreed stock. For the past three years the heads were carefully selected in the field before harvesting. Now we have a strain that grows about four feet high and produces forty per cent more than it did three years ago under the same climatic and soil conditions.

Per (lb. 20c postpaid) (10 lbs. \$1.00) (20 lbs. \$1.50) (50 lbs. \$2.50) (100 lbs. \$4.00) F. O. B. Los Angeles.

Egyptian Wheat or Shallu

It can be cut six weeks from planting and once a month during the entire summer, or one crop of grain may be harvested and yet grow a good crop for pasture. Mr. E. S. Cook, of Imperial Valley, says: "It will grow as thrifty on alkali soil as on any other. It produces from two to three tons of seed per acre. It can be ground into flour or used for stock feed; it is especially adapted to chicken feed, and is an excellent egg producer." **Per lb. 20c, postpaid. Write for quantity price.**

Millet

Plant all varieties from April 1st to Aug. 1st

German Millet

Produces from 4 to 5 tons of hay to the acre, or from two to three thousand pounds of seed. Seed grown in moist land will mature a heavy crop of hay without irrigation. Yields two crops in a season. Sow 20 pounds to the acre. Price—(Per lb. 20c postpaid) (10 lbs. 75c) f. o. b. here.

Common Millet

It is an annual grass, its luxuriant leaves being very juicy and tender, are much relished by all stock. It makes a very good hay. Sow 30 pounds to the acre. Price—(Per lb. 20c postpaid) (10 lbs. 75c) f. o. b. here.

Pearl Millet or Pencilaria

Cannot be excelled for fodder when cut quite young when it is tender. When mature, the fodder is too coarse and is injurious to stock. The grain is of little value. Price—(Per lb. 20c postpaid) (10 lbs. \$1.50) f. o. b. here.

Hungarian Millet

It germinates readily and stands great drought. Has numerous succulent leaves, broad and over a foot in length. Furnishes a n abundance of green fodder, relished by all kinds of stock. Sow 40 pounds to the acre. Price—(Per lb. 20c) postpaid; (10 lbs. 75c) f. o. b. here.

Hog Millet Grows rapidly and abundantly. Hogs pastured on Millet need no further fattening. It attains perfection anywhere in the Southwest. Price—(Per lb. 20c postpaid) (10 lbs. 75c) f. o. b. here.



German Millet

Grain

Write for quantity prices on all grain.

With our up-to-date facilities for cleaning all kinds of seed, we aim to have all field seeds as clean and free from foul seeds as it is possible to make them.

Grain and other field seeds that pass in the open market as clean will often show ten per cent or more of broken grain, foul seeds, chaff and dirt. Should our prices appear higher than others, you will find upon investigation that they are cheaper, because of the purity of the seed.

Wheat

Sow 60 to 80 lbs. per acre

Turkey Red One of the best for milling, because of its hard, flinty grain.

Sonora Generally grown in the interior, thirty miles or more from the coast.

Defiance Grown almost exclusively near the coast because it is more nearly rust-proof than any other variety.

Durum or Macaroni Highly recommended by the United States Agricultural Department because it withstands drought, and is better adapted to dry farming on mesa lands. It has proven this claim in many places in the arid sections of the country. One grower from Weld County, Colo., writes: "Not a drop of water save a slight rain did my Macaroni Wheat have, yet it yielded 48 bushels to the acre." Price—(Per lb. 10c; by mail 20c) (10 lbs. 75c) (20 lbs. \$1.50) (100 lbs. \$5.00).

GRAIN (Continued)

Barley

Sow 80 to 100 lbs. per acre

We aim always to have the best it is possible to procure. We cannot fix a price because of the fluctuations of the market.

Bearded Barley, Beardless Barley and Bald Barley. Write for prices.

Oats

Sow 70 to 100 lbs. per acre

Texas Red (Rust Proof)—This is the only variety that is profitable to plant here. We have this on hand during the planting season.

Texas Red Oats—Grown in Texas.

Texas Red Oats—Grown in California. Write for prices.

Speltz (Emmer Wheat)

Sow 80 to 100 lbs. per acre

A grain for dry lands, introduced from Russia. This is a remarkable grain, and should receive the attention of all farmers. It is a species of drought-resisting wheat, and not inclined to rust. It will produce a fair crop under almost any condition of climate, but grows best in dry prairie regions with hot summers, giving excellent results. Thrives on poor land or stony ground. The Experimental Stations of both the Dakotas report that it resists drought better than oats or barley. All animals eat it green, greedily, and are fond of the straw. No matter how dry the season, speltz is sure to head. You will have grain even if you have but little straw. Sow 80 to 100 lbs. per acre very early, same as barley or oats. Price—(\$4.00 per 100 lbs. f. o. b. here.) Write for quantity price.

Rye (Winter)

Sow 60 to 70 lbs. per acre

Grown extensively for early winter pasture, green manuring, and for the straw, which is valuable for many commercial purposes. Write for prices.

Flax

Russian Flax will undoubtedly grow as luxuriantly in the Imperial and San Joaquin Valleys as it does in San Luis Obispo County, where it is at its best and yields about two tons of seed per acre. This at a normal value of \$2.25 per hundred pounds, f. o. b. San Francisco, means \$90.00 per acre to the grower, less the freight. This is better than wheat and corn, and no more expensive to grow. Sow 40 pounds of seed per acre. It requires the same culture as barley.

Price—20c per lb. prepaid). Write for quantity price.

Buckwheat

Sow 40 lbs. per acre

Silver Hull Blooms longer and matures earlier than other varieties; grain of a beautiful light gray color with very thin hull.

Price—(Per lb. 20c postpaid) (10 lbs. 60c) (100 lbs. \$5.00) f. o. b. Los Angeles.

Common Buckwheat It is now demonstrated that buckwheat is one of the best cover crops to grow during the summer months. The soil is always moist where shaded with buckwheat. Sow the seed any time after April 1st, about 45 pounds per acre. Within ten weeks it will have matured seed; plow under; the seed will within ten weeks mature another crop. Thus with one sowing of seed you can plow under four crops. It will not survive the winter. Therefore it is necessary to sow once a year. When necessary we advise irrigation about time of maturity, and plow under as soon after irrigating as the soil will permit.

We highly recommend the growing of Buckwheat for reclaiming desert land, as it will start a growth and produce a crop under more adverse conditions than any other crop we know of. Price on application.

Rice

Rice growing as an industry is now established in certain sections of California. It is now only a matter of local conditions.

If interested write to United States Department of Agriculture at Washington, D. C., for Farmer's Bulletin No. 688, and Circular No. 97.

The variety, now accepted as the best for California, is the **Wataribune**, an early variety imported from Japan.

Price—(Per lb. 20c prepaid) (10 lbs. 80c) f. o. b. here. Write for quantity price.

BIG THINGS

One who reads the papers is continually surprised to learn of the big things being done all about us. They read something as follows: "One rancher in Glenn County raised 1,000,000 sacks of grain."

"One grower along the Sacramento River near Stockton grew 1,500,000 sacks of potatoes."

Field Corn

We are listing only those varieties that have been tried here and have proven highly satisfactory. Prices of all varieties of field corn subject to market change. (Per lb. 15c postpaid) (10 lbs. 60c) f. o. b. here. Write for quantity price.

White

Champion White Pearl	110 days
Wisconsin White Dent	110 days
Iowa Silver Mine	100 days
Red Cob Ensilage	100 days
Hickory King	110 days

Yellow

Reid's Yellow Dent	100 days
Golden Beauty	100 days
King of the Earliest	100 days
Pride of the North	90 days
Improved Leaming	100 days
Iowa Gold Mine	100 days
Minnesota King	100 days
King Philip Yellow Flint	90 days
Calico or Squaw	100 days

Read This.—When grown without irrigation, our Pride of the North and King of the Earliest varieties are the most dependable. They are always a sure crop because of their extreme earliness, and they surprise the grower because of the great yield of grain.



Orange County Prolific

Mr. King, of Long Beach says that Orange County Prolific is nearly a sweet corn, and is therefore excellent for the table. It also adds to the feeding value for ensilage.

King Philip Flint

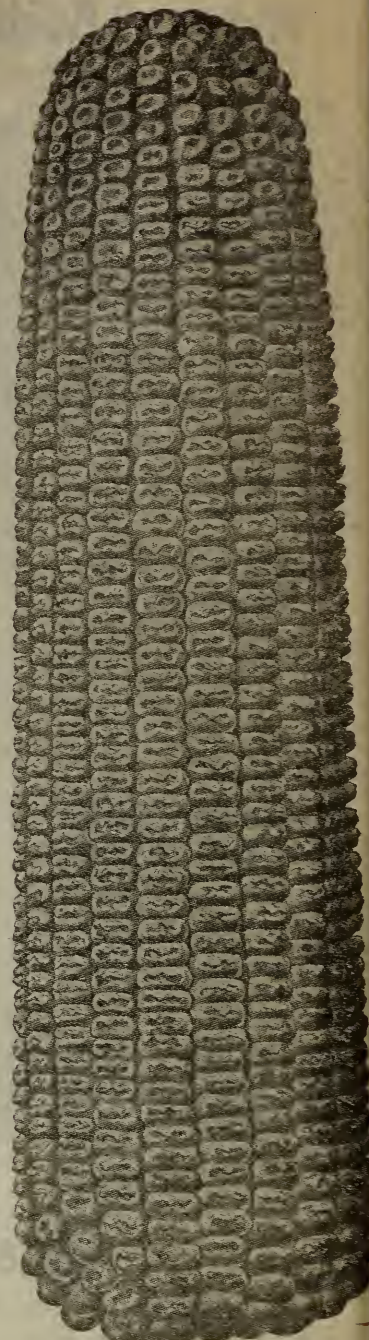
Orange County Prolific

For Ensilage as well as Corn

This White Dent variety is strictly a California product, and will surpass in amount of fodder or grain any other variety we have ever offered. It will readily yield one hundred and ten bushels of grain per acre, and when grown for ensilage it will yield more than fifty tons of ensilage per acre. We base this statement by comparing it with the Eureka Ensilage Corn, for which they claim seventy tons. Several fields of this corn were grown near Downey last season, almost by the side of our Orange County Prolific. See our picture of a field grown by Mr. Skidmore.

EUREKA ENSILAGE (See picture next page)

We have been shown the enormous growth of this variety for ensilage, but were unable to procure local seed. However, we have imported a limited quantity from the far East, that it may have a satisfactory introduction here. It is claimed it will yield seventy tons of ensilage per acre,—more than enough to feed seven head of cattle for one year. (Per lb. 25c postpaid) (10 lbs. \$1.00) f. o. b. here.



King of the Earliest

SWEET CORN FOR GREEN FODDER

We offer a good grade of sweet corn seed to sow in drills broadcast for green fodder. (10 lbs. 75c) (100 lbs. \$6.00) f. o. b. here.

About Corn.—More than 2,000,000 bushels of corn is produced in California annually, yet this is scarcely half enough to meet the local demand. This condition ought not exist because there is ample acreage where corn may be grown under irrigation, and near the Coast where it may be grown without irrigation. Where corn cannot be irrigated, plant the "King of the Earliest" variety.

Pop Corn

Rice Sharp pointed grain is preferred by vendors, but is not profitable to grow here at usual prices because of the devastations of the worm. (Per lb., by mail 20c) (10 lbs. 75c) f. o. b. here.

Pearl This is the variety so extensively and profitably grown locally. It yields enormously and at three cents per pound is very profitable, but for several years the grower has received four cents per pound for the entire crop. (Per lb. by mail 20c) (10 lbs. 75c) f. o. b. here.

Yellow Large smooth grains of Golden Yellow color. It pops large, has excellent flavor and is the most profitable to grow, but does not sell as readily as the Pearl. (Per lb. by mail 20c) (10 lbs. 75c) f. o. b. here.

Eureka Ensilage

70 TONS OF FODDER PER ACRE. ENOUGH ENSILAGE TO FEED SEVEN HEAD OF CATTLE FOR ONE YEAR, IS CLAIMED BY THE INTRODUCER.



Eureka Ensilage grown near Downey

Field Crops

When field seeds are desired by mail, add the required postage. See inside front cover page.

Grow Hemp, Rape, Sunflower and Canary Seed

The high price now prevailing will justify the planting of large acreage to these crops. With conditions that are likely to prevail in Europe beyond the time of planting next season's crop, it is sure the price of bird seed will greatly advance, thus making it certain that it would prove profitable to those who will plant large acreage to any of these crops. Each one of them is easily grown and easily harvested, but plant at least fifty acres, in order that you may have a carload of grain, or unite with your neighbors to grow a carload.

Many of these crops should be planted during December and January.

Mammoth Russian Sunflower Single heads measure 15 to 22 inches in diameter, and contain an immense amount of seed, which is highly valued by all farmers and poultry breeders who have tried it as an excellent and cheap food for fowls. It is the best egg-producing food known for poultry. It can be raised cheaper than corn, and is destined to be an article of great value. Every farmer should plant some of the seed in any waste piece of ground any time from early spring up to the middle of July. Three pounds of seed will plant one acre.

(1 lb. 20c prepaid). Write for quantity price.

Rape Thousands of sacks of rape are imported each year, while it grows wild in some localities of Southern California. It is a profitable and easy crop to grow, and harvest. If interested see us about it. (Per lb. 20c prepaid) (10 lbs. \$5c) f. o. b. here. Write for quantity price.

Canary This can be grown quite successfully here. It is just as easily grown as barley, and requires the same cultural treatment. Several carloads are imported each year into Los Angeles, all of which have come from Europe. The consumption throughout the United States is enormous. All of this could be grown in California. It is worth fifty to eighty dollars per ton to the grower. If interested, write or see us about it. (Per lb. 20c postpaid). Write for quantity price.

Hemp What has been said here of Canary is applicable also to Hemp. It is easily grown and requires about 100 days to mature a crop. It requires sixty pounds of seed to plant an acre, and should be sown in February or March. If interested, write or see us about it. (Per lb. 20c postpaid). Write for quantity price.

Only a few years ago a wise-man from the Southern cotton fields solemnly assured us that cotton never could be grown successfully in the Imperial Valley because the atmosphere is too dry. He knows better now.

Cotton

Now a staple crop in California. Write for quantity price.

Egyptian A tall long staple cotton, largely grown in the Imperial Valley, and is now one of the standard varieties. Our seed was grown in Imperial County from a thoroughly acclimated strain of Egyptian Cotton.

(Per pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.50 f. o. b. here)

American Long Staple Peeler This variety was recommended to Imperial growers by millmen of the Mississippi Delta. It has proven congenial to Imperial County and found to produce a cotton that sells at a special price because it can be used for larger bolt stock. The yield is from 1 to 1½ bales per acre.

(Per pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.50 f. o. b. here)

Durango Another popular variety in Imperial Valley. (Pkt. 5c) (1 lb. 25c prepaid) (10 lbs. \$1.50 f. o. b. here).

Improved Evergreen Broom Corn

This Broom Corn grows about eight to ten feet high, stands up well and is entirely free from crooked brush. The fibre is long and fine. Its great value is that it will not get red in the field before it is cut, but it is strictly a green variety of brush, commanding high price. It grows to perfection in all sections of Central and Southern California, back from the coast.

(Per lb. 25c postpaid) (10 lbs. \$1.00 f. o. b. here). Write for quantity price.

Dwarf Evergreen Broom Corn is more desirable than the Tall in a locality where a strong wind prevails. It is also less trouble to harvest, while the yield is nearly the same as the Tall variety. Price—(Per lb. 25c postpaid) (10 lbs. \$1.00 f. o. b. here). Write for quantity price.

Dwarf Evergreen Rape

Pasture for Hogs and Sheep

There is a need and a place for an extra quick growing green forage crop for use any time during fall, winter and spring and our Dwarf Essex Rape fills that need exactly.

Rape can never become a pest as it belongs to the same general family as the turnip and rutabaga and when planted under favorable conditions of soil and season, it makes an immense crop of green forage, juicy and succulent, and often at a time of year when little green feed is available.

If you have hogs or poultry to feed through the winter you can't afford to be without a rape patch. Once you have one, you will never be without one in the future.

We know of no crop plantable at the time of year suitable for rape that will bring you in so great a return for so little expenditure of time and money for seed.

Every poultry raiser needs at least a small patch of rape to furnish green feed during late fall, winter and early spring. Plant Sept. to Jan. Drill in rows, 3 feet apart.

25 cents per pound, postpaid. In quantity by express or freight, not prepaid, 10 cents per pound.

Grass Seeds for Lawns

The beautiful lawns of Southern California cannot be excelled anywhere in the world. In few places can a new home become so quickly surrounded with luxuriant vines, trees, shrubbery and flowers. This climate will accomplish more in one season than five seasons of Eastern climate. It is a pleasure to plant here, for there is something blooming all the year round. But it requires skill and intelligent aid to direct nature to produce a profusion of beautiful colors at all times.

To keep up the beauty of a lawn, it will be necessary to feed the grass well. You cannot expect it to retain that depth and richness of texture and color which characterizes it while young, after the elements of plant food have been exhausted.

In Southern California lawns may be made all the year. The first thing to do in making a lawn is to put the soil into proper condition to receive the seed. More lawn failures are due to insufficient preparation of the soil than to all other causes combined. If the soil is poor and of a sandy, clayey, or adobe nature, and a good rich loam is not available, satisfactory results may be obtained by spading in a liberal quantity of stable manure. Lawn grasses are voracious feeders and for that reason it is desirable to have at least eight or ten inches of good rich soil. Stable manure is most commonly used, especially for sandy soils, as chemical fertilizers usually leach too rapidly.

Unevenness in soil texture and fertility produces unevenness in the growth and color of the lawn grasses, even to the extent of grass dying in patches.

On small home grounds, it is better to have a perfectly level lawn, and in many cases this is a particular advantage in the conservation of water; the water spreading and soaking down evenly over the whole level area instead of running off as fast as applied, as is often the case on sloping surfaces.

Sow about one pound of seed to two hundred square feet of lawn area. This heavy sowing is better than a thin sowing because many weed plants are crowded out by a good thick stand of lawn grass. The seed is sown evenly when the wind is not blowing and lightly raked into the surface.

In many sections of California, mulching the lawn after sowing the seed is a very desirable and oftentimes a necessary practice. The material used for such mulching should be quite fine and light in weight. Old, well-rotted sheep manure is generally used and applied lightly over the surface. After the mulch is applied a thorough watering may be given, and the soil kept moist by daily watering until the seed germinates. As soon as the grass is tall enough to be clipped, the lawn mower should be used. This early clipping tends to check the top growth of the young grass plants, and encourages them to make roots, thus producing a firm sod. After the first clipping a good rolling will tend to smooth the surface and promote better growth. Lawns should be watered thoroughly about two or three times a week during dry weather, preferably in the evening. Light surface sprinklings for a few minutes every evening are worse than nothing, and waste of water.

Lawns should not be clipped too short during the hottest and driest months of the year. The knives of the machine should be set high and the short, fine clippings thus produced may be allowed to remain on the lawn where they will quickly work down around the grass plants, and produce a mulch that conserves moisture and protects the crown of the plants from extreme heat. If the grass is allowed to grow too long before cutting, and a large amount of clippings are produced, they are better raked off and taken away.

Weeds will usually give considerable trouble, especially in new lawns, and very often in old ones, and hand weeding seems to be the only reliable remedy. Weeds should be pulled, root and all, as soon as they make their appearance and are large enough to handle. They are also more easily pulled from soft moist soil than from a hard, dry surface.

Fancy Kentucky Blue Grass.—The purest and best lawn seed. Produces a lasting and beautiful effect. We sell only the finest quality of this seed. (Per lb. 40c) prepaid.

White Dutch Clover.—Makes a showy effect much quicker than the Blue Grass. In conjunction with the Blue Grass, however, it forms the finest and closest turf. (Per lb. 75c) prepaid.

Australian Rye Grass.—Is very strong and quick-growing, producing an immediate effect. Later it becomes bunchy, and after a few years runs out. (Per lb. 25c) prepaid.

Korean Velvet Grass A recent introduction of great merit, and a grass that will hold its own against the Bermuda Grass. We are not yet willing to recommend it to take the place of Blue Grass and White Clover for the front lawn, but for a back yard that is much trespassed, and for large side yards in which are many trees where it is desired to have a permanent sod other than Bermuda, we believe it would be entirely suitable. It develops no seed, but is propagated by divisions of tufts. Sold in flats 14 inches square, weighing about 20 pounds. One flat is sufficient to plant two hundred square feet. Price, \$1.25 per flat, f. o. b. here.



A Perfect Lawn from Our Seed at the Montebello High School

Plant Lippia on Your Terrace

Lippia Canescens.—This is a low-growing, trailing plant, producing grayish-green leaves, and quantities of small lilac-colored flowers. It is easily propagated by rooting pieces of sod every twelve inches. It may be mowed or allowed to grow at will. While it will respond to a light application of water, it will thrive and produce a good effect with little or no watering. Unlike Bermuda grass, it will never become a nuisance, and can easily be eradicated at any time. It stands sun and shade, and is well suited for planting in parkings along streets and avenues, and on terraces.

Sold in flats 18 inches square at \$1.00 per flat, f. o. b. here. These flats weigh about 40 pounds, making it expensive to ship. Therefore we often remove the soil and sometimes send only clippings by mail. We have in the season just past filled many orders by mail and by express as far as Florida, with entirely satisfactory results.

When wanted by mail, send 25c extra for each dollar's worth of Lippia ordered.



A Lippia Terrace

Tree and Shrub Seeds

EUCALYPTUS FUTURE TIMBER OF CALIFORNIA

We issue a pamphlet of instructions how to grow the trees from seed. The pamphlet is free to all who are interested in Eucalyptus. All prices on tree seeds are prepaid.

We sell Eucalyptus nursery stock. Small trees 15 to 20 inches tall, grown in flats of 100 trees each of the following named varieties: *Tereticornis*, *Rostrata*, *Globulus* and *Corynocalyx*. Price—(\$1.50 per flat of 100 trees) (\$12.50 per 1000 trees) f. o. b. here.

Globulus (Tasmania Blue Gum)—Well known. One of the most useful of all and a very rapid grower, planted in warm countries on account of its malaria destroying qualities; the wood partakes of a very high polish resembling polished hickory when finished; also valued for wagon work; as for fuel it is one of the best, easily sawed and split; height, 150 ft. (Pkt. 15c) (oz. 50c) (lb. \$5.00).

Corynocalyx (Sugar Gum)—Very ornamental and useful. Highly valued in this vicinity because it stands more drought than any other variety we know of. Timber very durable and is used for railroad ties, telephone poles, etc.; height, 100 feet. (Pkt. 15c) (oz. \$1.00).

Robusto (Swamp Mahogany)—Thrives best on low grounds especially near the coast; is remarkably healthy. Greatly used in this section of the country for avenue planting; height, 100 feet. (Pkt. 15c) (oz. 60c) (lb. \$6.00).

Rostrata (Red Gum)—Well known. A rapid grower. It will grow under a great variety of climates. The timber is unsurpassed for durability, and it is used in furniture, vehicles, agricultural implements, manufacturing. Also used for railroad ties, street paving blocks, and ship building; height, 200 feet. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

Rudis (Desert Gum)—This tree is noted for its toughness, being used as an avenue and wind break, withstanding winds, heat and cold; height, 100 feet. (Pkt. 20c) (oz. \$1.00) (lb. \$10.00).

Tereticornis (Gray Gum)—A rapid grower and erect. Wood durable and useful for shingles, flooring, piles; bridge work and street paving blocks, boat building and wheelwright work. It is also a good honey producer; height, 200 feet. (Pkt. 15c) (oz. 75c) (lb. \$7.50).

Cypress

Macrocarpa (Monterey Cypress)—A California native, and one of the most desirable of evergreens; extensively used for hedges and wind breaks; height, 50 feet. (Pkt. 10c) (oz. 20c) (lb. \$2.00).

Sempervirens (Italian Cypress)—A European variety growing very erect, branches parallel with the trunk; deep green color. Very desirable for cemeteries and arches; height, 60 feet. (Pkt. 10c) (oz. 30c) (lb. \$3.00).

Pinus Canariensis (Canary Island Pine)—A handsome tree, of robust growth, with bright green foliage; growing almost as rapidly as the Monterey Pine; height, 100 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Insignis (Monterey Pine)—A very fine pine; native of California, being particularly well adapted to our coast counties, thriving in almost any kind of soil; height, 100 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Lambertiana (Sugar Pine)—The tallest of all California pines, presenting a very attractive appearance when young. Its timber is the most valuable of all our native pines, height, 150 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Sequoia Gigantea (California Big Tree)—The largest of all trees, probably the longest lived; rising like a tapering pyramid. The lower branches sweep the ground; an excellent ornamental tree, either for the coast or interior; height, 300 feet. (Pkt. 15c) (oz. 75c).

Sempervirens (California Redwood)—Well known throughout the world for its famous redwood timber. Very ornamental and a rapid grower; of tapering pyramid habit; does remarkably well in any part of California; used for lawns and parks; height, 200 feet. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

Acacia

The Acacias are all natives of Australia and Tasmania. The wood is valuable, they are all of rapid growth, and produce their various shades of yellow flowers in great profusion. For quick growth and shade-affording purposes, we know of no better tree. We specialize the *Melanoxylon* (Black Acacia), *Floribunda* (abundance of flowers) and the *Baileyana*.

Acacia Baileyana—A very ornamental tree with glaucous green foliage. Flowers yellow, in racemes 3 to 4 inches long. One of the most beautiful of the Acacias for lawn and park planting; height, 20 feet. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

Cultriformis (Knife Leaved Acacia)—A beautiful species and of distinct character, forming a large shrub, with glaucous green leaves. When in bloom the plants present a splendid appearance on the lawn; height, 10 to 15 feet. (Pkt. 10c) (oz. 35c) (lb. \$4.00).

Dealbata (Silver Wattle)—With beautiful silvery foliage; very ornamental for sidewalks and lawn planting; flowers canary yellow, fine for cut flowers; keeps well; height 40 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Floribunda—An abundant bloomer and ornamental; very valuable for lawn, park, sidewalks; height, 20 feet. (Pkt. 10c) (oz. 40c) (lb. \$4.00).

Lophantha (Crested Wattle)—One of the most rapid growing for first temporary shelter; good for beach or dry places; height, 20 feet. (Pkt. 5c) (oz. 15c) (lb. \$1.25).

Melanoxlyn (Blackwood)—A well uniformed tree. Being planted very extensively for sidewalk ornaments, attaining a height of 50 feet. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Conifera--Cedar

Libani (Cedar of Lebanon)—A magnificent tree for lawn decoration; height, 75 feet. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

Cryptomeria Elegans—A small, dense tree, with glaucous green foliage, changing in autumn to bronzy crimson color, which it retains through the winter. (Pkt. 10c) (oz. 50c) (lb. \$5.00).

Japonica (Japan Cedar)—Large, slender tree, with a tapering trunk, covered with a reddish brown bark; thrives under any conditions; height, 75 feet. (Pkt. 10c) (oz. 30c) (lb. \$3.00).

Juniperus Virginia (Red Cedar)—A well-known ornamental tree, usually of pyramidal form and having beautiful red heart wood. Its timber has an aromatic fragrance and is very useful; height, 60 feet. (Pkt. 10c) (oz. 25c) (lb. \$2.50).

Palms

Chamaerops Excelsa (Windmill Palm)—Native of China and Japan. Leaves fan-shaped, deeply cut. This is the hardiest palm we have, and although it is not such a rapid grower as some, it makes a fine lawn palm and an excellent sidewalk palm; height, 20 feet. (Pkt. 5c) (oz. 10c) (lb. \$1.00).

Corypha Australia (Australia)—One of the handsomest of the Fan palms; the fan-like leaves are dark green, supported upon brown petioles, which are armed at their edges with stout spines; hardy in Southern California. (10 seeds 10c) (100 seeds 75c).

Phoenix Canariensis (Canary Island Palm)—The most graceful and the handsomest of our hardy palms; leaves pinnate and of a deep, dark green color; one of the most effective palms for a lawn and worthy of the attention of all admirers of the palm family. (10 seeds 10c) (100 seeds 75c).

Washington Filifera—The well-known California Fan Palm, which first originated in San Bernardino county; may be seen throughout all Southern California; attains a height of 60 to 80 feet; always a large bunch of leaves hanging close to the trunk. (Pkt. 5c) (oz. 10c) (lb. \$1.00).

Washingtonia Robusta—This is a very distinct type from the preceding, although the leaves have the same shape and drooping tendency. (Pkt. 5c) (oz. 25c) (lb. \$2.50).

Miscellaneous

Camphor Officinalis (Camphor Tree)—A symmetrical and ornamental tree, thriving in poor soil; bright green foliage; extensively planted throughout Southern California as an avenue tree, also making a nice ornament for the lawn. This tree is a native of Japan and China. From this tree they extract the camphor of commerce. Attains a height in its native country of 50 feet. (Pkt. 10c) (oz. 25c) (lb. \$2.50).

Grivillea Robusta (Silk Oak of Australia)—A well-known shade tree throughout California, with fern-like foliage and flowers of orange color; and of rapid growth; height 75 feet. (Pkt. 10c) (oz. 40c) (lb. \$4.00).

Jacaranda Mimosaeifolia (Brazilian Jacaranda)—A handsome tree with fern-like foliage. Flowers blue or light violet, blooming in clusters early in the summer months. Greatly used as a street tree; very hardy in this vicinity; height 40 feet. Pods containing from 20 to 40 seeds. (5c each) (per doz. 40c).

Magnolia Grandiflora—A native of the Southern states. One of America's most noble evergreens; foliage is thick, with a nice bright, waxy green; foliage underneath of brown velvet color; flowers of pure white; of immense size and fragrance; height, 75 feet. Fresh seed during the fall and winter. (Pkt. 10c) (oz. 35c) (lb. \$3.50).

Schinus Molle (Mexican Pepper Tree)—This ornamental tree has been one of the greatest attractions of Southwest California, with light feathery foliage and bright scarlet berries during the winter months. (Pkt. 5c) (oz. 10c) (lb. 75c).

Melia Umbrauliformis (Texas Umbrella Tree)—Of a very rapid growth; the top forming in the shape of an umbrella and very dense; greatly recommended for the hot and dry country; height, 40 feet. (Pkt. 5c) (oz. 10c) (lb. \$1.00).

Robinia Pseudacacia (Black Locust)—A rapid growing tree with spreading branches; a valuable timber tree, lumber used for various mechanical purposes; flowers white appearing in spring; height 70 feet. (Pkt. 5c) (oz. 10c) (lb. 75c).

Wild Sour Orange—We have on hand from January until May fresh seed from abroad. (Per gallon \$6.00) (per bushel \$45.00) f. o. b. here. Price subject to market change.

Sweet Orange Seed—California grown. (Per gallon \$3.00) (per bushel \$23.00) f. o. b. here.

Bitter Almond—(Per lb. 30c) postpaid; (10 lbs. or more, 20c per lb.) f. o. b. here.

Myrobalan Plum—Considered the best root stock. (Per lb. \$1.00). Write for quantity price. One pound contains 100 seeds.

California Wild Walnut—The best and hardiest. (Per lb. 25c prepaid). Write for quantity price.

Apricot—(Per lb. 20c postpaid) (10 lbs. 50c f. o. b. here). Write for quantity price.

Peach—We have a limited quantity of pits from seedlings, and some Salways. (Per lb. 15c) postpaid; (10 lbs. 50c) f. o. b. here.

If inexperienced, write for our books on Art of Propagation, 30c, and Planter's Guide, 25c.



Just a Jungle of Wild Flowers

A & M WILD FLOWER MIXTURE

If you have a piece of ground you cannot irrigate or have not time to give particular attention, yet you want to have something beautiful instead of unsightly weeds, we advise you to plant our A. & M. Wild Flower Mixture, and you will have a jungle of wild flowers like the picture above. One pound of seed is sufficient to plant an acre. (Pkt. 5c) (oz. 30c) (¼ lb. \$1.25) (½ lb. \$2.25) (lb. \$4.00) postpaid.

SEPARATE VARIETIES. We offer the following varieties in individual packets:

Eschscholtzia californica. "California Poppy." Annual, 1 to 1½ feet. The most noted of California Wild Flowers. Orange-yellow, with a beautiful glossy sheen. (Pkt. 5c) (oz. 25c).

Gilia achillaeifolia. "Blue Gilia." Annual, 1 to 1½ feet high. Small lavender-blue flowers in dense heads on graceful, slender stems. (Pkt. 5c) (oz. 25c) (lb. \$3.00).

Godetia amoena. "Farewell to Spring." Annual, 1 to 2 feet high. A slender growing plant, usually found on shady banks. Flowers lilac-crimson or red-pink, often with a dark center. (Pkt. 5c) (oz. 50c) (lb. \$5.00).

Layia elegans. "Tidy Tips." Annual, 1 to 2 feet. A yellow daisy, edged with white or cream color. (Pkt. 15c).

Lilanthus densiflorus. "California Phlox." Annual, 1 to 2 feet high. Flowers in crowded clusters; pink and purple with yellow throat. (Pkt. 10c) (oz. 50c).

Lupinus nanus. "Dwarf Blue Lupine." Annual, 10 to 15 inches high. A very showy plant; flowers rich blue and white, fragrant. (Pkt. 5c) (oz. 35c).

Mentzelia lindleyi. "Blazing Star." Annual, 2 to 3 feet. Showy yellow flowers. (Pkt. 5c) (oz. 50c).

Nemophila insignis. "Baby-Blue-Eyes." Annual, 4 to 8 inches high. A charming little plant of spreading habit, with clear, azure blue flowers. Prefers shade or partial shade. (Pkt. 5c) (oz. 25c).

Nemophila maculata. "Spotted Nemophila." Annual, 4 to 8 inches. White with large deep purple blotch on each petal. Does well in shady places. (Pkt. 5c) (oz. 25c).

Plants for Window Boxes, Vases and Baskets. Ageratum, Alyssum, Begonia, Canna, Coleus, Dracaena, Indivisa, Fuchsia, Grevillea, Geraniums, Heliotrope, German Ivy, Lobelia, Mignonette, Myosotis, Maurandia, Nasturtiums, Portulaca, Petunia, Schizanthus, Thunbergia.

CALIFORNIA, THE LAND OF FLOWERS

There are no more satisfactory flowers than those grown from seed, especially the easily grown and brilliant flowered annuals. The beautiful shrubs and lilies, of course, have their place, but are far more expensive than a paper of seed which will furnish a large number of plants with usually enough for one's garden and some to spare.

This page is intended to aid you in the selection of your seeds that you may have flowers all the year round, and for every purpose.

Tender or Greenhouse means the plant will not stand the least frost. All such must be planted late in spring (May) or in a greenhouse.

Half Hardy means the plant will stand any light frost, but needs protection against very cold weather. These should be planted in the spring (March and April), not in the fall.

Hardy means the plant will stand considerable frost, or practically all we have on the Pacific Coast. These may be planted in the fall or in the spring (October to May). If sown in the fall they will come into bloom earlier than if

sown in spring, even if the plants do not make much progress during the cold weather.

Annuals are plants that bloom the first year from seed, and the plant dies after one season. Tender annuals must be sown in spring (April to June) and hardy annuals may be sown in either spring or fall (October to May).

Biennials are plants that bloom the second year from seed, and the plant dies after blooming. In California many of these will bloom the first year if sown early. Sow under same conditions as perennials.

Perennials are plants that bloom the second year from seed, and the plant lives and blooms during successive years. If sown in early spring (February to April 15) many perennials will bloom the first year from seed. Tender and half-hardy perennials are best sown in spring after frost is over (April 15 to June). Hardy perennials are best sown in the late summer and early fall (July to October) for next year's flowers.

LIST OF FLOWER SEED FOR SPECIAL PURPOSES

PERENNIAL PLANTS

Antirrhinum, Aquilegia, Asters (hardy sorts), Bellis, Canna, Campanula, Carnations, Chrysanthemums (hardy sorts), Coreopsis, Delphinium, Dianthus, Digitalis, Gaillardia (hardy), Geranium, Gypsophila, Paniculata, Heliotrope, Hollyhocks, Lobelia (hardy sorts), Matricaria, Myosotis, Pansy, Phlox (hardy), Pinks (hardy), Poppy Iceland, Poppy Oriental, Primrose, Pyrethrum, Sweet William, Verbena, Violet, Wallflower.

PLANTS FOR BEDDING AND IN MASSES

Adonis, Agrostema, Amaranthus, Antirrhinum, Asters, Bachelor's Button, Balsam, Calceola, Calendula, Calliopsis, California Poppy, Campanula, Canna, Castor Beans, Carnation, Chrysanthemum, Clarkia, Cosmos, Coxcomb, Delphinium, Digitalis, Four o'clock, Gaillardia, Geranium, Heliotrope, Lantana, Larkspur, Linum, Mignonette, Nicotiana, Nigella, Phlox, Petunia, Pinks, Poppy, Salpiglossis, Salvia, Scabiosa, Sunflower (fancy), Stocks, Sweet Sultan, Sweet William, Verbena, Wallflower, Zinnia.

For Constant and Brilliant Bloom. African Daisy, Ageratum, Sweet Alyssum, Antirrhinum, Asters in all varieties, Calliopsis, all the dwarf Cannas, Centaurea, Eschscholtzia, Gaillardia, scarlet Geraniums, Marigold, Nasturtium, Pansy, Petunia, Phlox Drummondii, Portulaca, Salvia, Scabiosa, Sweet Peas, Verbena, Double Zinnia.

Low-Growing Plants for Masses of Color. **White**—Sweet Alyssum, White Ageratum, White Candytuft, White Phlox, Drummondii, White Verbena.

Blue—Ageratum, Heliotrope, Lobelia, blue Verbena.

Red—Carmine and Crimson Candytuft, Geranium, Phlox Drummondii, Scarlet, and Phlox Dwarf Fireball, Poppy, Verbena.

Yellow—Gaillardia, Eschscholtzia, French Marigold and Nasturtium Lady Bird.

Dwarf Plants for Edgings and Borders. Ageratum, Alyssum, Dwarf Candytuft, Centaurea, Coleus, Double Daisies, Golden Feather, Little Gem Feverfew, Heliotrope, Lobelia, Mignonette, Myosotis, Pansies, Phlox Drummondii, Pinks, Violets.

Fragrant Flowers. Sweet Alyssum, Candytuft, Carnation, Clematis, Paniculata, Honeysuckle, Heliotrope, Lily of the Valley, Lily, Mignonette, Nicotiana Affinis, Pansy, Sweet Peas, Pink, Rose, Sweet William, Ten Weeks Stock, Tuberosa, Verbena, Wallflower.

Climbing Plants. Ampelopsis, Cypress Vine, Cinnamon Vine, Dolichos, the Gourd Family, Humulus Japonicus, Honeysuckle, Morning Glories and Ipomoeas, English Ivy, Maurandia, Perennial Peas, Trumpet Vine, Canary Bird Vine, Alyssum, Begonia, Canna, Coleus, Dracaena Indivisa, Fuchsia, Grevillea, Geraniums, Heliotrope, German Ivy, Lobelia, Lantana, Mignonette, Mimulus, Myosotis, Maurandia, Nasturtiums, Portulaca, Petunia, Schizanthus, Thunbergia, Myosotis (Forget-me-not).

For Cut Flowers. Antirrhinum, Aster, Carnation, Chrysanthemum, Coreopsis, Cosmos, Dahlia, Gladiolus, Gypsophila, Helianthus, Larkspur, Lupinus, Marigold, Mignonette, Phlox, Salpiglossis, Scabiosa, Stock, Sweet Pea, Sweet William, Sweet Sultan, Verbena, Wallflower, Zinnia.

For Shady Places. Anemone, Antirrhinum, Aquilegia, Begonia (tuberous), Double Daisy, Delphinium, Scarlet Flax, Foxglove, Oenothera, Pansy, Polyanthus, Violet.

FLOWER SEED LIST

See Pages 9 and 10 and Inside Back Cover.



Phlox and Candidissima



Petunia

ABRONIA (Sand Verbena).—A hardy annual, trailing in habit, about nine inches high, bearing verbena-like clusters of flowers, which are very fragrant. A native of California. Thrives in dry situations, and is valuable for rock-work or hanging baskets.

Umbellata.—Rosy lilac. Pkt. 5c; oz. 50c.

ADONIS (Floss Adonis, or Pheasant's Eye). A hardy annual of easy culture, growing about one foot high. Leaves fine-cut and feathery; flowers crimson. Seed should be sown in the autumn. Pkt. 5c.

AGERATUM (Floss Flower).—A hardy annual of easy culture, especially valuable for bedding, as it is literally covered with blossoms all summer. Sow the seed early in the spring, either in boxes to transplant, or out of doors, and thin to four to six inches.

Blue Perfection.—Deep blue, one foot high. Pkt. 5c; ½ oz. 45c.

Mexicanum, Imperial Dwarf Blue.—Eight inches high, flowers blue. Pkt. 5c; oz. 60c.

AGROSTEMA (Rose of Heaven).—A hardy perennial, blooming the first season if the seed is sown in the autumn. Plant grows one to two feet high; flowers resemble Dianthus in bright colors, and are borne on long, slender stems. Mixed colors, pkt. 5c.

ALYSSUM (Maritimum).—A fragrant, hardy annual, having the odor of honey, and bearing spikes of small white flowers in great profusion throughout the summer and autumn. Useful for borders or early bedding flowers. Sow the seed early in spring.

Common Sweet Alyssum.—One foot high, very sweet honey fragrance. (Pkt. 5c) (oz. 25c).

Little Gem.—Three to four inches high; fine for borders. Pkt. 5c.

Saxatile.—A yellowish perennial variety. Pkt. 5c.

AMARANTHUS.—Hardy annuals, grown especially for their brilliant foliage.

Caudatus (Love Lies Bleeding).—Light yellowish-green foliage; long, drooping crimson flower spikes. Plants grow three to four feet high. Pkt. 5c.

AMPELOPSIS, QUINQUEFOLIA.—See Virginia Creeper.

ANGEL'S TRUMPET.—See Datura.

ANTIRRHINUM (Snapdragon).—Antirrhinum thrive in almost any soil, and should receive more attention. It is undoubtedly one of the best cut flowers which can readily be grown from seed, while for bedding or borders they are unsurpassed.

Antirrhinum Double White.—Quite a new departure in the class of tall, large flowering snapdragons is here offered. Out of the mouth-like aperture in the flowers between the upper and lower lips, emerge abnormal fantastic petals which give a double and beard-like aspect to the very large bloom. Pkt. 15c.

Majus, Album.—Tall. Flowers of large size, pure white. Pkt. 5c.

Majus, Fire King.—Tall. Resplendent coloring of rich yellow and scarlet crimson. Pkt. 10c.

Majus, Grandiflora.—Tall. Mixed; including all the new colors. Pkt. 5c.

Majus, Queen Victoria.—Striking variety, sending up numerous long spikes of pure white flowers. Excellent for cutting. Pkt. 10c.

Majus, Stratum.—Tall. Spikes of beautiful striped flowers. Pkt. 5c.

Nanum, Black Prince.—Semi-Dwarf variety. Extremely rich color, which makes a splendid contrast with the lighter varieties. Pkt. 10c.

Nanum, Queen of the North.—Semi-dwarf. An extremely beautiful pure white variety, well adapted for small beds or borders. Pkt. 10c.

Nanum, Tom Thumb.—Mixed. Pkt. 5c.

AQUILEGIA.—A hardy perennial, growing about two feet high and bearing an immense variety of colors on long, smooth stems.

California Hybrida.—Large yellow flowers, orange spurs; an improvement on our native sort. Pkt. 10c.

Coerulea (Rocky Mountain Blue Columbine).—Fine deep blue and white; long spurs. Pkt. 10c.

White, Spurred.—Pure white with long spurs. Pkt. 10c.

Single Mixed (A. Vulgaris).—Pkt. 5c.

Double Mixed (A. Vulgaris).—Pkt. 5c.

Long Spurred Hybrids Mixed.—Showy. Pkt. 10c.

Skinneri (Mexican Columbine).—Very

handsome and quite distinct; spurs and petals long, crimson and light green. Pkt. 10c.

ARCTOTIC (African Daisy).

Grandis.—Large pearly white Marguerite-like flower, with delicate mauve center surrounded by a narrow golden band. The whole plant is covered with white down. Half hardy annual. Height 2 feet. Pkt. 5c.



Aquilega Long Spurred

ASPARAGUS

Plumosus.—A tender perennial for green-house or potted plant use, with long, fine feathery foliage. The sprays, when cut, retain their freshness in water from three to four weeks. Seeds start slowly and should be soaked in water before sowing. (Pkt. 10c) (100 seeds 50c).

Sprengeri (Emerald Feather).—An early, easily grown, feathery-leaved variety, with drooping branches. The best variety for hanging baskets. (Pkt. 10c) (100 seeds 50c).

See Pages 9 and 10 and Inside Back Cover.



Asters, Acres of Them

ASTERS.—A popular half-hardy annual produced in a great variety of classes and an almost endless number of colors. The tallest grow about two feet high, and some varieties of dwarfs are not over three inches high. The best method of culture is to sow the seed in boxes about January 1st, and transplant about April 1st to 15th. The seed can be sown, however, in the row where the plants are to remain, thinning them from six to twelve inches apart, according to variety.

Giant Hohenzollern.—Excellent, robust class with enormous flowers of most refined shape, unsurpassed for cutting and exhibitions. Mixed. Pkt. 10c.

Giant Comet.—Elegant flowers, resembling the finest Japanese Chrysanthemums. Unrivalled for table decorations. Height, 18 inches. Mixed. Pkt. 10c.

Hercules Aster, Rosy Lilac.—The Hercules type, having long, curly petals, which droop and twist gracefully from the center, and are so dense and full as to resemble one of the finest chrysanthemums; five to six inches across. It needs, however, fine, rich soil to bring out its greatest beauty. Pkt. 25c.

Ostrich Plume Pluto.—A splendid new strain, large massive flowers of the deepest blood red, excellent for cutting. Pkt. 15c.



Aster Ostrich Plume Pluto

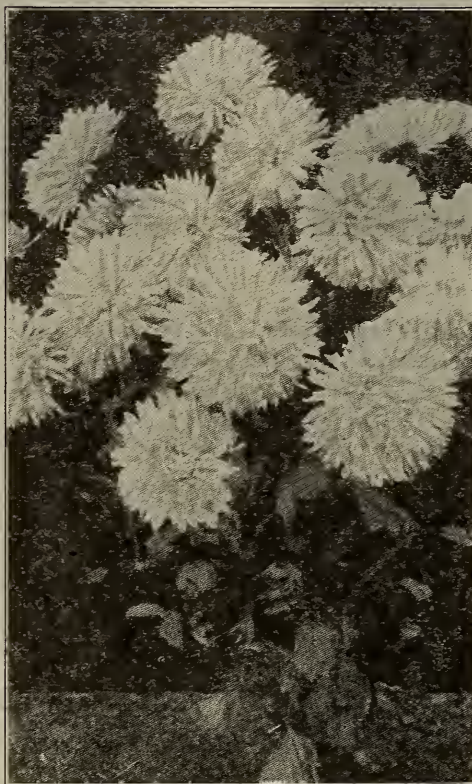
Snowball.—A splendid Aster of dwarf symmetrical habit, not more than 12 inches in height. The pure white double flowers are imbricated, of extraordinary size, and are indispensable for exhibitions. Pkt. 10c.

Triumph.—Excellent Paeony-flowered Aster, of Tom Thumb habit. Large incurved flowers of dark scarlet. Pkt. 10c.

Victoria.—One of the finest classes for exhibition; flowers very large as the petals curve outward instead of folding in; the Victoria makes a splendid contrast to the Paeony flowered varieties. Height, 18 inches. Mixed. Pkt. 10c.

Queen of the Market.—One of the earliest blooming varieties, blossoming frequently in July. Of spreading habit, 8 to 10 inches high. Blossoms medium sized, and the petals curve outward. Mixed, pkt. 10c.

Ostrich Plume.—Extremely graceful Aster, with large, loose feathery heads, unrivalled for table decoration, flowers double and semi-double. The branching habit makes this a conspicuous border plant. Height, 18 inches. Mixed. Pkt. 10c.



Branching Asters

Giant Branching.—The tallest and best florist's variety, and we heartily recommend it as the very best type of Aster we have. The plant grows 18 inches high and about 18 inches in width, and the blossoms, which are large and full-petaled, are borne on long stems or branches. The most satisfactory type of all Asters, since it is not only a showy bedding flower, but owing to its long stems and large blossoms, is valuable for bouquets. Comes into flower late in the autumn. Best colors:

Carmine, White,
Lavender, Crimson,
Pink, Light Blue,
Rose, Purple.

Mixed—Pkt. 10c.

AUSTRALIAN PEA VINE (Dolichos Lig-nosus).—A rapid growing evergreen climbing perennial, flowering freely in large clusters of rose flowers. For covering arbors, trellises, etc., they have no superior. Pink (pkt. 5c) (oz. 25c).

BALSAM OR LADY'S SLIPPER.—A tender annual, with brittle stems and foliage. Grows about 12 inches high. Flowers both single and double, in



Bellis (English Daisy)

bright colors and variations; are wax-like and very attractive. The individual blossoms floating in a dish of water exhibit their beauty to the best advantage.

Improved Camellia Flowered.—In its extraordinary size, perfect form and brilliant colors, this fine strain of balsams surpasses all others. Height, 18 inches. Finest mixed. Pkt. 5c.

Rose Flowered.—Handsome double flowers in form resembling a rose. Height, 18 inches, fine mixed. Pkt. 5c.

Spotted.—Large semi-double flowers well adapted for borders, fine mixed colors. Pkt. 5c.

BACHELOR'S BUTTON. See Centaurea.

BALLOON VINE, OR LOVE-IN-A-PUFF. Climbing annual, with small inferior flowers. The seed pods are curiously swelled or puffed, and are quite attractive. (Pkt. 5c) (oz. 25c).

BEAN (Scarlet Runner).—A popular climber; the seed is edible and much esteemed. Flowers scarlet; beans black and red. (Pkt. 5c) (½ lb. 15c) (lb. 25c).

BIGNONIA (Trumpet Vine).—Magnificent hardy perennial climber, with brilliant scarlet or yellow flowers; a most ornamental and effective covering for walls, houses, etc. 30 feet. Pkt. 5c.

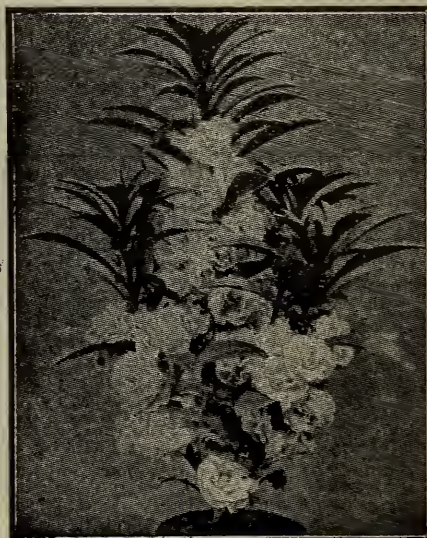
BORDER PINKS.—See Dianthus Plumar-ius.

BELLIS PERENNIS (Double Daisy).—A hardy perennial, blossoming freely all spring and summer. Plant is about four inches high and is valuable for borders. Is much sown in lawns.

Extra Double White, or Snowball.—A clear white variety. (Pkt. 10c) (¼ oz. 50c).

Double.—Mixed. (Pkt. 10c) (1-8 oz. 50c)

Double Pink.—(Pkt. 15c) (¼ oz. 50c). Our flower seeds are of the best quality that money and experience can produce.



Balsam



Begonia Gigantea Crispa

BEGONIA.—Tender perennial, usually grown in the green-house. Some varieties are especially attractive on account of their foliage, but most varieties have exquisitely beautiful wax-like flowers, both single and double. The seed is very small and rather difficult to germinate. It is also very expensive, some strains being worth far more than their weight in gold.

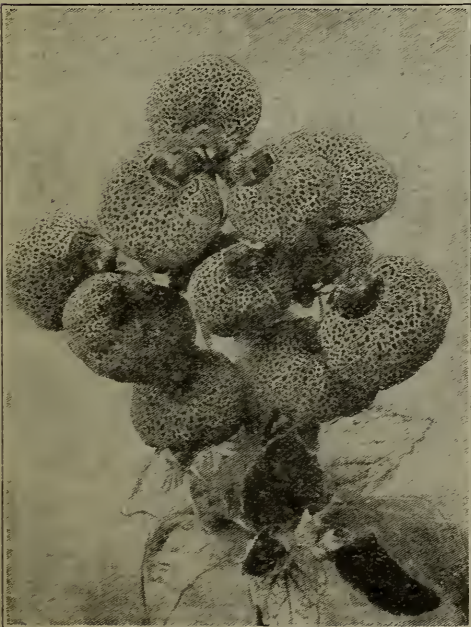
Begonia Hybrida Gigantea Crispa.—The flowers are of enormous size, varying in color from pure white to dark purple. The petals are curled wavelike, the bursting buds are folded and ruffled in such a peculiar fashion that they present the appearance of a large double flower. Pkt. 15c.

Fibrous-Rooted Varieties.—For outdoor culture, having beautiful leaves and bearing clusters of small, waxy flowers. Pkt. 25c.

CALENDULA (Pot Marigold).—Very hardy annual, one foot high, blooming freely practically the whole year round. Is of the easiest culture and is desirable for rather inferior soils, where less sturdy flowers do not thrive. A medicinal extract resembling arnica is made from the flowers.

Double Mixed.—A good mixture of 8 or 10 different shades of yellow, some clear colors and some shaded and striped. (Pkt. 5c) (oz. 15c).

Meteor.—Large double yellow flowers, striped with orange. Pkt. 5c.



Calceolaria

Prince of Orange.—A fine deep orange. Pkt. 5c.

CALCEOLARIA.—A tender perennial, used largely in greenhouses and conservatories. Bears a large profusion of small, pocket-shaped flowers, many of which are beautifully tigered or spotted. There is a great variety of shades and colors in various markings.

Grandiflora.—Large-flowered, self-colored, profuse flowers. Pkt. 25c.

CALLIOPSIS (See Coreopsis)

CALIFORNIA POPPY (See Eschscholtzia)

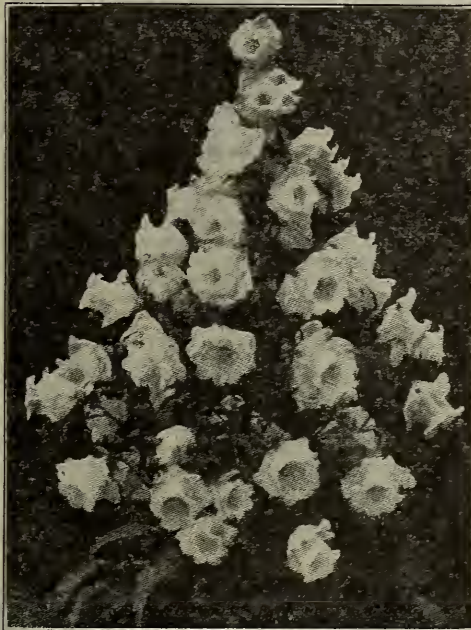
CANARY BIRD FLOWER (Tropaeolum Canariense).—A tender, climbing annual of the nasturtium family. Blossoms have curiously winged petals and are light yellow. (Pkt. 5c) (oz. 50c).

CANNA.—See Bulbs, Page 14.

CANNA.—Mixture of the popular varieties. Red and yellow flowers. Plants have large ornamental leaves. Pkt. 5c.

Crozy's Varieties.—Mixed. New large-flowered and free-blooming sorts. Pkt. 5c.

CASTOR OIL BEAN (See Ricinus)



Campanula

CANDYTUFT (Iberis).—A hardy annual, growing about 6 to 18 inches high, according to the variety. The blossoms are borne on variously long spikes, and the newer varieties are quite large flowering and very fragrant. Of easy culture and valuable for bedding or massing.

Coronaria Empress.—Large trusses of pure white flowers, the finest candytuft yet raised. Pkt. 5c.

Umbellata Carmine.—Large carmine colored flowers. Pkt. 5c.

Umbellata Hybrida.—Mixed, including the best large flowering varieties. (Pkt. 5c) (oz. 25c).

Umbellata Purpurea.—Exceedingly showy and effective variety, bearing large spikes of dark crimson flowers. Pkt. 5c.

CANTERBURY BELLS (Campanula Medium).—A hardy perennial, blooming the second year from seed, or the first, if sown early. Grows about three feet high.

Calycanthema.—Improved mixed, a combination of the finest and most delicate colors in cultivation, including single, double and cup and saucer varieties. Height 3 ft. Pkt. 5c.

Persicifolia Grandiflora Hybrids.—Including pure white and various pleasing shades of mauve, blue, purple and some elegant, semi-double flowers. Height 2 ft. Pkt. 10c.

See Pages 9 and 10 and Inside Back Cover.



CARNATION (Marguerite Pure White)

Medium.—Choice selection of pleasing colors single mixed. Pkt. 5c.

CARNATION.—Our strain of these popular flowers is unsurpassable in beauty and variety of coloring, also in their delightful fragrance. For largest, richest flowers, we recommend their culture in pots of rich soil or small, shallow boxes. Cover the seed lightly, and shade from the strong rays of the sun. When the young plants are two or three inches high, they may be transplanted out into small beds. Shade and water them until established. Then they can be planted out in well-prepared beds, 12 to 18 inches apart. While the weather is cool, the ground should be mulched about 2 inches deep with well-rotted manure. This will not only help to retain the moisture in the ground, but also supply nutriment to the plants. The seed may be sown any time between March and September.

Chaubaud Earliest French.—From the ease with which this fine carnation can be flowered as an annual it has attained a popular position, and will continue to hold a foremost place in the garden. The beautiful fringed double flowers make a brilliant display of attractive coloring in the open and are greatly prized in borders and for table decoration. Mixed colors. Pkt. 15c.

Early Flowered Vienna Dwarf.—Extra early flowered strain of compact habit. Invaluable for bedding on account of



Carnation Duchess of Saxony Coburg Gotha

the extremely free blooming habit of the plants. Colors varied and flowers mostly double. Pkt. 10c.

Marguerite, Mixed Colors.—Very varied; gives a large percentage of fine double flowers. (Pkt. 10c) (1-8 oz. 20c).



Celosia Empress

Carnation Duchess of Saxony Coburg Gotha.—Giant flowering carnation of a pure white color, freely produced and each bloom standing on a firm, long, erect flower stem. The great merit of this new variety is that it produces its exquisitely scented flowers within six months from date of sowing, saving all the trouble of wintering the plants. Pkt. 20c.

Grenadin Scarlet.—A valuable early-flowering variety coming quite true to color and producing an exceptionally large percentage of sweet scented double scarlet flowers of a most telling color. Pkt. 10c.

Germania.—An excellent companion to the preceding and producing very large double flowers of a deep rich canary yellow. Pkt. 15c.

Marguerite Pure White.—An exquisite sweet scented fringed flower of pure white color. Invaluable for bedding or indoor decoration. Pkt. 10c.

CELOSIA (Cockscomb).—Very ornamental and strong plants, producing magnificent spikes of feathery looking flowers. They succeed well in the garden and make very attractive pot plants.

Empress.—A handsome strain, large and compact heads; color splendid crimson. Pkt. 15c.

Glasgow Prize.—A greatly improved strain with immense heads borne on sturdy robust plants of dwarf habit. The color is a rich crimson, excellent for borders. Pkt. 15c.

Pyramidalis Plumosa.—Handsome pyramidal form bearing long feathery plumes in brilliant colors. Mixed. Pkt. 5c.

Thompsoni Magnifica.—A very fine selection of the popular feathered Celosia containing many pleasing shades of color carrying from pale yellow to the deepest crimson. Pkt. 10c.

CENTAUREA.—A hardy annual, embracing a number of species, some being grown only for their foliage. All varieties grow from 1½ to 2 feet high. Sow the seed early and transplant in March. Excepting the white leaved sorts, all make excellent cut flowers.

Double Blue.—A vigorous semi-double plant, having a remarkable lasting quality when cut. Pkt. 10c.

Candidissima or True Dusty Miller. Broad silvery-white foliage useful for bedding. Height 1 foot. Pkt. 15c.

Cyanus Emperor William.—The rich, deep blue Bachelors Button. Pkt. 5c.

Imperialis.—A magnificent large flowered type exquisitely fringed and delightfully scented. The flowers are at least twice the size of the older varieties and retain their freshness in water a long period and are well adapted for cutting. Height 3 feet.

Imperialis Pure White.—Pkt. 10c.

Imperialis Yellow.—Pkt. 10c.

Imperialis Lavender.—Pkt. 10c.

Imperialis Mixed.—Pkt. 10c.

Moschata or Sweet Sultan.—A well known type in white, yellow, lavender and purple blossoms.

Fine Mixed.—A combination of various colors. Pkt. 5c.

Suavealena.—Bright... yellow... flowers. Pkt. 5c.

Odorata Marguerite.—Deservedly popular, pure white flowers of the Imperialis class. Pkt. 5c.

Odorata Light Blue.—Shows sweet-scented flowers of clear mauve color. Pkt. 5c.

Odorata Mixed.—Including white and various shades of yellow, mauve, blue and purple. Pkt. 5c.

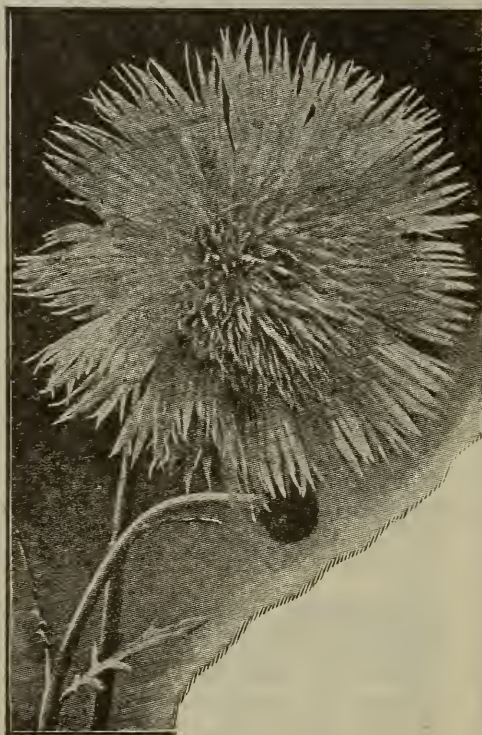
CHRYSANTHEMUM.—There are many widely different classes of this flower in the hardy or garden varieties, both single and double, and the perennial varieties, chief of which is the double or florists' variety, highly prized in the autumn and winter.

Bridal Robe.—Of very compact and upright habit and not exceeding 10 inches in height, double pure white flowers. With their short closely-set petals the flowers recall the finest forms of very large flowering double Daisies. Pkt. 15c.

Carinatum Hybridum.—Dwarf double mixed, produce a diversity of colors, including many new and attractive shades. Pkt. 5c.

Coronarum Compactum Fl. Pl. White Pearl.—A vigorous-growing class of a branching habit, bearing large, pure white, double flowers, invaluable for cutting as they retain their freshness for a long period in water. Pkt. 10c.

CALLIOPSIS RADIATA TIGER STAR.—A rich and continuously blooming annual with pretty, peculiar flowers. The leaflets of each flower are twisted like those of the well known Cactus Dahlia. Toward the center they show a vivid reddish brown coloration, the outer part being brilliant golden yellow tinged. The plants reach a height of about 8 inches and form round compact bushes which are throughout the summer literally covered with pretty flowers. Pkt. 10c.



Centaurea Imperialis

Flower Seed Collections—See Page 10.



Calliopsis Tiger Star

Tintoria.—Showy, yellow and brown flowers, height 2½ to 3 feet. Pkt. 5c.

CINERARIA.—A tender perennial, grown principally in the greenhouse, but can be grown in the garden in summer. Seed should be sown in summer, and the greenhouse requires only moderate heat. Plants grow from 1 to 2 feet high and bear clusters of large, single flowers of bright colors. Will do well in a partly shaded location.

Cineraria Hybrida Grandiflora.—The mixture includes every conceivable shade of pink, carmine, crimson and blue, varying to violet, as well as pure white, and blue and white. The flowers are of immense size. Pkt. 35c.

Hybrida.—Choice mixed; splendid strain of compact growth, bearing large exquisitely colored flowers. Pkt. 25c.

CLARKIA.—A hardy annual of easy culture, growing about 18 inches high and bearing bright rose, white, or purple flowers in great profusion. Native of California. Seed sown in the fall will give early blossoms in the spring. Seed can be sown almost any time. Double Mixed, pkt. 5c. Single Mixed, pkt. 5c.

GLIANTHUS DIAMPIERI (Glory Pea of Australia).—One of the most gorgeous flowers in existence; the flowers are pea-shaped, of a brilliant scarlet color with intense black center; requires a dry, warm soil and little water; 2 ft. high. Soak seeds in hot water before sowing. Pkt. 15c.

CLEMATIS. Large Flowered Mixed. A popular hardy perennial climber. An old favorite and justly so, for there are few garden climbers that give more satisfaction. Pkt. 10c.

Paniculata.—A very fine hardy climber; leaves bright and glossy green; flowers small and hawthorn scented, and just covering the plant when in bloom. Excellent for covering trellises, cemeteries or fences. Pkt. 10c.

COBEA SCANDENS (Cup and Saucer Vines).—A climber of rapid growth; very valuable for covering trellises, arbor, trunks of trees, etc. Will cling to any rough surface, often attaining a height of 30 to 40 feet in one season.

Scandens Purpurea.—Large bell-shaped purple flowers. Pkt. 10c.

Scandens Alba.—Pure white. Pkt. 10c.



Shasta Daisy

COIX LACHRYMAE ("Job's Tears").—Curious ornamental grass with broad, corn-like leaves and seeds of a light slate color. Valuable for winter bouquets with everlasting flowers. Strings of handsome beads are made from the seeds. Hardy annual; three feet high. (Pkt. 5c) (oz. 30c).

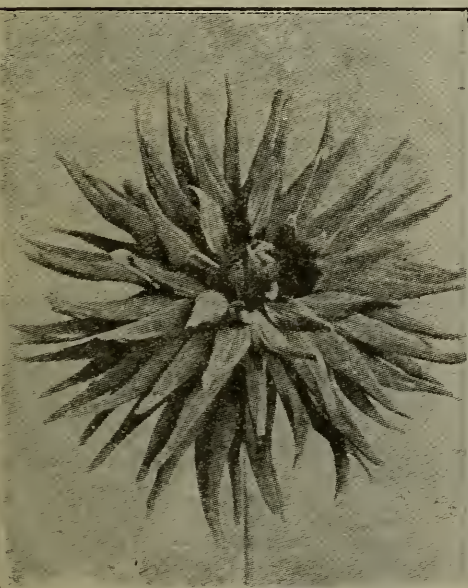
COLEUS.—These beautiful and ornamental foliage plants, producing the most attractive colors are a most interesting subject to grow from seed. To watch the foliage change into a variety of colors as it grows day by day, is wonderful. Pkt. 15c.

CONVOLVULUS (See Morning Glory). When selecting your flower seeds refer to pages 100 and 101.

COREOPSIS.—Also known as Calliopsis, will grow luxuriantly in any situation and are most useful, affording a constant supply of richly marked flowers for cutting. All varieties are annuals with the exception of C-Grandiflora.

Drummond.—Large, rich, golden yellow flowers with chestnut-brown centers produced in abundance. Height 18 inches. Pkt. 5c.

Lanceolata Grandiflora.—Produces a profuse and long-continued succession of large, bold, golden yellow flowers during the whole summer months. Seed sown in March will flower the same season. Height 2½ feet. Pkt. 5c.



Dahlia Cactus

Single Mixed.—A selection of the brightest and richest colored large-flowered varieties. (Pkt. 5c) (oz. 30c).

COSMOS.—A tender annual, with fine-cut, feathery foliage and large, showy blossoms. The late-flowering or giant type grows 5 to 6 feet high and its blossoms are larger than the early varieties. They bloom late in the fall, or about November 1st.

Late Giant Crimson.—(Pkt. 5c) (oz. 25c).

Late Giant Pink.—(Pkt. 5c) (oz. 25c).

Late Giant White.—(Pkt. 5c) (oz. 25c).

Late Giant Mixed Colors.—(Pkt. 5c) (oz. 25c).

New Gigantic Orchid Flowering Lady Lennox.—Size, 6 to 7 inches in diameter, with wide overlapping petals of an exquisite shade of shell pink. The flowers are on long stems, making them exceptionally desirable for cutting. Height 5 to 7 feet. Pkt. 10c.

CYCLAMEN.—A tender, bulbous perennial, used in greenhouses and window gardens. It is easily grown from seed. Sow in the fall or early spring.

Persicum Giganteum.—Flowers of extraordinary size. The leaves are proportionately large, marked with silver-grey. Extra choice mixed. Pkt. 20c.

Papilio, Butterfly.—Fringed flowers in all possible colors, as white with rose, rose with scarlet, crimson with violet, etc. Pkt. 25c.

Persicum.—Not so large as the Giants, but easier to grow. Choice mixed colors. Pkt. 10c.

Victoria.—A truly magnificent strain of Cyclamen, vigorous habit and many flowers; elegant appearance. The lovely margins of the upper part of the fringed flowers displaying the softest and richest colors lends to a flowering plant a most enchanting appearance. In all possible colors—as white with rose, rose with scarlet, crimson with violet, etc., and the coloration of the margin always corresponds with that of the base of the flower. Pkt. 20c.

CYPRESS VINE (*Ipomea Quamoclit*).—A tender climbing annual with soft fern-like foliage and small star-like flowers. Choice mixed colors. (Pkt. 5c) (oz. 50c).

DAHLIA.—A popular summer and autumn blooming plant; is grown from seed or propagated from the bulbous roots. Sow seed early in hot-beds and transplant as soon as danger of frost is past.

Cactus.—Mixed, double, with pointed petals. Pkt. 10c.

Double.—Choice mixed colors in great variety and flowers of excellent form. Pkt. 5c.

Single Mixed.—Seed saved from the choicest varieties. Pkt. 5c.

Lucifer.—Early and extremely free-flowering strain of dwarf habit, with flowers of a rich dark red color, showing to great effect above the dark foliage. Makes a most attractive bed. Pkt. 10c.

DAISY, SHASTA DAISY.—A fine perennial plant bearing large white single blossoms, with yellow centers. Soak seed in warm water over night before sowing. Pkt. 10c.

DAISY, DOUBLE (See Bellis)

DATURA (Trumpet Flower).—Tender annual, growing about 3 feet high, flowers large and trumpet shaped.

Fasduosa Huberiana.—Choice. mixed colors. Pkt. 5c.

DELPHINIUM (See Larkspur)

DIANTHUS, OR PINKS.—Hardy annuals, about 1 foot high, and bearing beautifully colored single and double blossoms in profusion all summer. Sow seed early in boxes and transplant, or sow in rows where the plants are to remain, and thin.

Chinensis Double.—Choice mixed. Largest double flowers of beautiful colors. Pkt. 5c.

Mixture of Double and Single Pinks. This mixture contains the best of the Dianthus varieties. Pkt. 5c.

Mourning Cloak.—Large double flowers almost black in color, beautifully edged with white. Pkt. 5c.

Plumarius (Grass Pink).—Very hardy producing large fragrant double, semi-double and single flowers of varied colors. Pkt. 5c.



Dianthus Plumarius

Snow Drift.—Large, pure white double flowers beautifully fringed. Pkt. 5c.

DUSTY MILLER (See Candidissima)

DIGITALIS, OR FOXGLOVE.—A hardy perennial, blooming the second year from seed. Grows usually about 3½ feet, although in very rich soil sometimes 6 feet. The bell shaped flowers are borne on long spikes, and come in shades of purple, lavender, rose and white, all spotted lightly inside the blossom. Thrive best in cool, shady locations. Fine mixed, pkt. 5c.

DIMORPHOTHECA AURANTIACA.—The Golden Marguerite. A rare and extremely showy annual from South Africa which has become a great favorite on account of its easy culture and beautifully colored flowers. Its Marguerite-like blossoms, produced in great profusion, are 2½ to 2¾ inches in diameter. These are a unique glossy rich orange gold, which brilliant coloring is rendered more conspicuous by the dark disk surrounding the black zone. Pkt. 10c.

DOLICHOS, OR HYACINTH BEAN.—Tender, climbing annual. Grows rapidly and is valuable for covering a trellis. Flowers in purple or white; are borne on long stems, the individual blossoms resembling the bean flower, and the ornamental pods resemble bean pods. Sow seed in open ground late in April. Lablab. Mixed. (Pkt. 5c) (oz. 15c).

EVERLASTING FLOWER (See Helicrysum)

EVERLASTING PEA (See Lathyrus Latifolius)

EVENING PRIMROSE (See Oenothera)



Dimorphotheca Aurantiaca



California Poppy

ESCHSCHOLTZIA OR CALIFORNIA POPPY.—A hardy annual, with fine-cut feathery foliage and beautiful velvety cup-shaped flowers. Grows from 1 to 1½ feet high and blooms profusely. Seed may be sown in the fall and any time thereafter till April, and blossoms may be had from early in January till late in summer. The beautiful State flower of California.

Californicus.—The bright, orange-yellow common variety. (Pkt. 5c) (oz. 25c).

Crocea.—Pure deep orange. (Pkt. 5c) (oz. 25c).

Mixture of all varieties.—(Pkt. 5c) (oz. 25c) (lb. \$2.25).

BUSH ESCHSCHOLTZIA (See *Hunemannia*)

FLAX (See *Linum*)

FEVERFEW (*Matricaria Capensis*).—Called Double Feverfew. A plant growing 18 inches high and bearing profusely pure white, very double flowers. Pkt. 5c. See also *Pyrethrum* for edging varieties.

FLOWERING SAGE (See *Salvia*)

FOXGLOVE (See *Digitalis*)

FUCHSIA (*Lady's Eardrop*).—A well known plant of easy culture in pots for the conservatory, parlor decoration or the open ground. Start seed early under glass. Double Mixed. Pkt. 25c.

FOUR O'CLOCK (*Mirabilis*).—A hardy annual of easy culture, growing about 2 feet high. The plant is free flowering, bearing blooms of a great variety of colors and spikes.

Jalapa Marvel of Peru.—Mixed. (Pkt. 5c) (oz. 15c).

FORGET-ME-NOT (*Myosotis*).—A hardy perennial, growing 6 to 12 inches high. Small star-like flowers are borne in clusters on long stems; blooms the first year if seed is sown early. Thrives best in a cool, moist location.

Alpestris.—Blue. Pkt. 5c.

Victoria.—Large flowers; bright azure blue with yellow center; plant symmetrical, dwarf and strong grower. Pkt. 10c.

GAILLARDIA.—Beautiful show plant, remarkable for the profusion, size and brilliancy of its flowers continuing in bloom from early summer till late in the fall. Excellent for beds, borders, or for cutting. Should be sown where they are to bloom, height 18 inches.

Grandiflora.—Single perennial variety of varying shades of reddish brown and yellow. Pkt. 5c.

Picta Lorenziana Double Mixed.—Large heads of bright yellow and red flowers. Very double, with quilled petals, suitable for bouquets. Pkt. 5c.

Picta.—Favorite bedding plant, producing throughout the summer numerous yellow and scarlet flowers. Pkt. 5c.

GERANIUM.—A half-hardy perennial, flowering the first year from seed if sown early. A gorgeous flower of numerous shades of color; bearing continuously renders this one of the most popular plants grown.

Large Flowers of Fancy Show.—This choice mixture includes many of the newest and finest sorts. Pkt. 25c.

GERANIUM CUTTINGS.—See Page 10.



Geranium

GILLIFLOWER (See *Ten Weeks' Stocks*)

GLADIOLUS.—Well known magnificent plants, with sword-like leaves and long spikes of flowers of every conceivable color and shade. Many new and rare varieties are produced from seed. Pkt. 15c.



Gaillardia

Geranium Cuttings.—See Page 10.



Gloxinia Ornamental Foliage

GLOXINIA.—Beautiful hot-house plants, with large, bell-shaped blossoms, which come in rich, velvety-deep, and bright colors, some of which are beautifully marked. Sow in the fall or early spring.

Hybrida Grandiflora.—Enormous flowers. Pkt. 25c.

Ornamental Foliage.—A new Hybrid foliage. The leaves are very large and vary from velvety brown to glossy purple. The enormous flowers, which appear in great profusion, are bright, rosy-carmine, with spotted white throats. Pkt. 25c.

GODETIA.—A hardy annual, ten inches high, of compact growth, satiny cup-shaped flowers in deep red, pink and white, shaded and blended. Valuable for bedding. Sow seed early in the year; grows wild in California.

Duchess of Albany.—Beautiful glossy, satin-white flowers produced in great abundance. Height 1 foot. Pkt. 5c.

The Bride.—Lovely white flowers suffused with rose, height 1 foot. Pkt. 5c.

Lady Albemarle.—A splendid variety. Flowers large and of intense glowing carmine-crimson, slightly edged with lilac. Height 1 foot. Pkt. 5c.

Lady Satin Rose.—Bright, rose-colored flowers having glossy satin-like petals. Height 6 inches. Pkt. 5c.

Whitneyi.—Highly effective variety with brilliant carmine flowers. Very freely produced on compact plants, height 1 foot. Pkt. 5c.

Whitneyi Fulgida.—An extremely showy variety, flowers of a brilliant crimson-scarlet, with white center. Very striking and effective. Pkt. 5c.

Semi-Dwarf Mixed.—Including all the finest varieties. Pkt. 5c.

GOLDEN-GLOW (See *Rudbeckia*)

GYPSOPHILA (*Baby's Breath*).—A hardy annual of easy culture. Grows two to three feet high, and bears a profusion of small star-shaped white and pink flowers.

Paniculata.—Fine for bouquets; white-flowers; perennial. (Pkt. 5c) (oz. 60c).

Elegans.—Annual white. Very largely grown by florists for use in bouquets. (Pkt. 5c) (oz. 35c).

HELIANTHUS (See *Sunflower*)

Our garden manual is free with a fifty-cent order for seeds. Get it and read pages 19 and 20.

HELIOTROPE.—A half-hardy perennial growing four to eight feet high. Small flowers, borne in graceful clusters and very fragrant. Blooms the first season from seed if sown early. Forms a large plant and requires a roomy situation.

Louise Delaux.—Flowers rose tinted Pkt. 10c.

Queen Marguerite.—Purple blue. Pkt. 10c.

White Lady.—Pure white. Pkt. 10c.

Finest Mixed.—A mixture of the ordinary true types. Pkt. 10c.



Helichrysum

HELICHRYSUM (Everlasting Flower).—A free-flowering, hardy annual, growing four to five feet high and bearing beautiful straw-like flowers in a great variety of shades and colors. Makes a very handsome dried bouquet. Mixed. (Pkt. 5c.) (oz. 50c).

HIBISCUS.—A hardy annual, growing about 2 feet high, showing an ornamental class of plants with large, beautiful colored flowers; grows freely in common garden soil.

Africanus.—A showy, hardy annual, cream color with rich brown center. Height 2 feet. Pkt. 5c.

HOLLYHOCK.—A hardy perennial of upright, stately growth, five to eight feet high. The very double varieties are the most desirable, but the newer, semi-double, fringed types are also very popular.

Allegheny.—This unique and beautiful variety produces semi-double flowers about 3 inches across. The petals are crinkled and fringed like crumpled and slashed satin. Pkt. 10c.

Chater's Superb Mixed.—Saved from a magnificent collection of fine named double varieties. Pkt. 10c.

New Annual Mixed.—Saved from the best trial varieties. Pkt. 10c.



Hollyhock

HUMULUS, OR JAPANESE HOP—A rapid-growing, hardy climbing annual with dense leaves. Will grow 20 to 30 feet in a season.

Japonicus.—Bright green foliage. Pkt. 10c.

Japonicus Variegatus.—Bright, variegated yellow, white and green leaves. (Pkt. 10c) (oz. 40c).

HUNNEMANNIA, OR BUSH ESCHSCHOLTZIA.—Known also as the Santa Barbara Poppy. An erect-growing, tender perennial, about two feet high. Foliage fine-cut, feathery blossoms, beautifully cup-shaped, bright yellow, and about three to four inches across. Stems, long and smooth. Pkt. 5c.

HYACINTH BEAN (See Dolichos)

IPOMOEA.—An extensive genus, including many well known garden flowers. Are tender climbing annuals, from 5 to 30 feet long. The seed of several varieties, especially the moon flower, should have the outer shell punctured and then soaked in water for twelve hours or more to germinate it.

Bona Nox (Evening Glory).—Rosy lilac flowers, expanding in the evening; of very rapid growth. Pkt. 5c.

Coccinea.—Brilliant scarlet flowers, with small foliage. Pkt. 5c.

Hederacea Grandiflora Alba.—Large flowers of pure white. Pkt. 10c.

Learli.—Violet and blue flowers. Pkt. 10c.

Mexicana Alba.—At night and during dull days the plants are covered with an abundance of large pure white flowers, 5 to 6 inches in diameter. Very rapid grower. (Pkt. 10c) (oz. 75c).

Rubro Coerulea.—Very large, sky-blue flowers. Pkt. 5c.



JERUSALEM CHERRY (Perennial)—A dwarf, branching plant with small oval-shaped leaves, dark green in color, and bearing a great profusion of handsome, bright scarlet berries. The plant grows to a height of two feet, and makes a beautiful hedge, or in pots is a suitable indoor ornament for holiday decorations. (Pkt. 5c).

JOB'S TEARS (See Colix Lachryma)

KOCHIA TRICOPHYLLA (Summer Cypress).—A splendid ornamental annual plant, forming dense oval bushes, 2 to 2½ feet high, of small, feathery, light green foliage. As summer advances this changes to a carmine hue and finally to a fiery red. A very attractive plant at all times. Also called "Burning Bush." Pkt. 5c.

KUDZU VINE (Pueraria Thunbergiana). A new climber of great merit. This vine is one of the most rapid climbers there is, growing to 20 feet quickly. Called also Jack-and-the-Bean Stalk. Hardy perennial. (Pkt. 10c) (oz. 60c).



Larkspur

LARKSPUR, OR DELPHINIUM.—Beautiful, hardy border perennials with noble spikes of handsome flowers; very useful for cut flowers, etc.

HARDY PERENNIAL LARKSPUR Cardinale.—Very beautiful strain with large handsome flower spikes of bright scarlet; height 4 feet. Pkt. 10c.

Elatum Hybridum Double Mixed. Large, handsome flower spikes, including the best of the new double and single varieties; height 3 feet. Pkt. 5c.

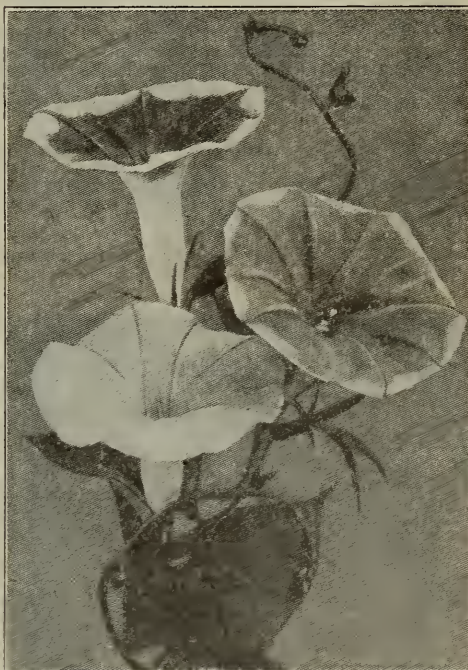
Formosum.—Rich blue flowers, exceedingly effective in borders; height 2 feet. Pkt. 5c.

Hybridum Single Mixed.—Very showy strain. Pkt. 5c.

Sulphureum.—Long spikes of charming clear, yellow flowers; quite a distinct color among perennial larkspur; height 3 feet. Pkt. 15c.

LANTANA.—Tender perennial, growing from 2 to 3 feet high, bearing Verbena-like clusters of flowers, in orange, white, rose and other colors, excellent for bedding.

Choice Mixed.—Pkt. 5c.



Japanese Morning Glory

IMPERIAL JAPANESE (See list under Morning Glory)

IPOMEA QUAMOCLIT (See Cypress Vine)
JAPANESE HOP (See Humulus Japonicus)

Flower Seed Collections—See Page 10.

LATHRYUS LATHIFOLIUS (Everlasting Pea).—A hardy, perennial climber of great beauty with elegant sweet pea-like flowers in great profusion; height 6 to 8 feet.

Red—Pkt. 5c.

White—Pkt. 5c.

Fine Mixed.—(Pkt. 5c) (oz. 30c).

LAVATERA (Tree Mallow).—A showy hedge plant, growing about 6 feet high and covered with shrimp-pink, cup-shaped flowers. Sow in May in the open ground and thin young plants to 12 inches apart.

Trimestric Alba.—Beautiful large, glossy, pearly-white flowers. An effective contrast to the pink (Rosea). Valuable for borders. Pkt. 5c.

Trimestric Rosea.—Magnificent variety of a brilliant rosy-pink. Extremely useful for cutting, the blooms remaining in beauty for a long period. Pkt. 5c.

LINUM, OR SCARLET FLAX.—A hardy annual, about one and one-half feet high. Of splendor and graceful appearance, with smooth stems and bright red flowers, which are borne in great profusion. Can be sown early out of doors, and thrives well in good soil.

Rubrum.—(Pkt. 5c) (oz. 15c).

LOVE-IN-A-MIST (See *Nigella*)

LOBELIA.—A hardy annual and perennial. The annual grows four to six inches high, is of compact growth, and literally covered with small bright flowers. By cutting back the plants during the summer and giving plenty of water they may be kept in flower all summer. Used for ribbon work and borders or hanging baskets.

Bernard's Perpetual.—Flowers brilliant ultramarine blue, with a pure white mark at the base of each of the two lower petals; height 6 inches. Pkt. 5c.

Cardinals Queen Victoria.—Beautiful perennial variety with vivid scarlet flowers and metallic crimson foliage; height 2 feet. Pkt. 15c.

Crystal Palace.—Undoubtedly the finest dwarf blue Lobelia for bedding. Plants very compact, profusely covered with rich blue flowers. Height 4 inches. Pkt. 10c.

Hybrida Amanda.—Blossoms, which open rosy-like and pass to a deep amaranth red, an intense shade from which the sharply defined pure white eye stands out in telling contrast. Pkt. 15c.

Royal Purple.—Dark, bronzy green foliage, flowers rich purple-velvet with clear white eye. A splendid variety for ribbon borders, window boxes, etc. Height 6 inches. Pkt. 5c.

LOVE LIES BLEEDING (See *Amaranthus Caudatus*)



Lobelia Crystal Palace

MARIGOLD.—A hardy annual, in dwarf and tall varieties, growing from 6 inches to 3 feet high. The flowers are various shades of yellow and brown. The tall varieties are very valuable for large bedding or background work, and the dwarf varieties for borders.

African Tall Double Orange.—Beautifully formed flowers of gigantic size and bright color; height 2½ feet. Pkt. 5c.

French Tall Striped.—The flowers have a yellow ground, with rich brown markings; height 2 feet. Pkt. 5c.

Gold Ring.—The color is a dark velvety brown, gracefully surrounded by a distinct gold ring. The compact, bushy plant flowers abundantly and is more lasting than any other annual. Pkt. 10c.

Tall Double Lemon.—A charming shade of color; height 2½ feet. Pkt. 5c.

Tall Double Mixed.—A combination of the best varieties; height 2 feet. Pkt. 5c.

Dwarf Double Mixed.—Profuse flowering, and well adapted for a bedding display in autumn; height 1 foot. Pkt. 5c.



Marigold Gold Ring

MATRICARIA (Double Feverfew).—Bushy perennial garden plant, bearing quantities of white and yellow double button-like flowers; useful for cutting. **Golden Ball.**—Very striking double golden yellow flowers; height 1 foot. Pkt. 10c.

Silver Ball.—Dainty, milk-white, fully double flowers, which make a pretty contrast with Golden Ball. Pkt. 10c.

MARVEL OF PERU (See *Four O'Clock*)

MIGNONETTE.—Hardy annual, growing 6 to 12 inches high and bearing pyramid-shaped spikes, exceedingly fragrant. Sow in the fall for early blossoms in the spring. Valuable for potting, bedding or border. The flowers are not attractive except for their fragrance.

Allen's Defiance.—Long spikes of whitish flowers and compact growth. Pkt. 10c.

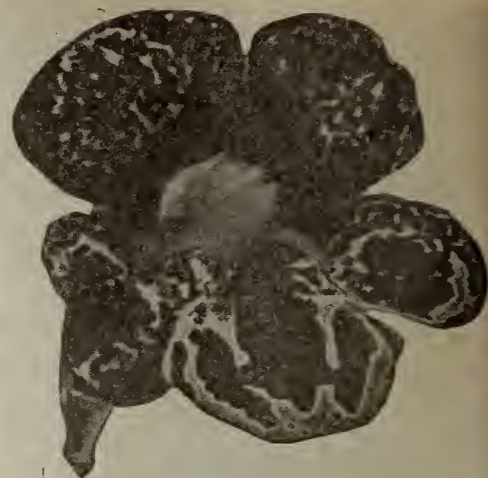
Gollath.—Robust growing variety with enormous spikes of red colored flowers; height 15 inches. Pkt. 10c.

Machet.—A dwarf compact variety, with large stubby spikes covered with copper-red flowers, etc. Pkt. 5c.

Sweet scented (Reseda Odorata).—Pkt. 5c) (oz. 25c).

Victoria.—Flowers of a deep red color, well formed spikes; height 1 foot. (Pkt. 5c).

MINA LOBATA.—A fine annual climber which grows very rapidly to a height of 20 or 30 feet in a season. The leaves are of good size and dense, and the flowers are freely borne in clusters; orange red. Pkt. 10c.



Mimulus (Monkey Flower)

MIMULUS.—A half hardy perennial, growing from 6 inches to 1 foot high. Blooms freely and exists in a large variety of colors. For gardens in a moist, shady situation. Blooms first year from seed if sown early.

Cardinals.—Scarlet flowered perennial; 18 inches high; useful for a border; free flowering. Pkt. 10c.

Moschatus, or Musk Plant.—Fragrant plant, with small yellow blossoms, spotted lightly with brown. Pkt. 5c.

Tigrinus, or Monkey Flower.—Large flowers of several colors, and spotted. Pkt. 10c.

MOMORDICA (Balsamina) (Balsam Apple).—A climbing annual, growing about 10 feet long. Has graceful and ornamental foliage, yellow flowers and warted golden yellow fruit, with large carmine-red seeds. Balsam Apple and Balsam Pear are climbers which thrive in hot locations, and are much planted around Bakersfield. Pkt. 5c.

Charantia, or Balsam Pear.—Same as the Balsam Apple, but fruit is pear-shaped. Pkt. 5c.

MOONFLOWER (See *Ipomea Grandiflora Alba*).

MORNING GLORY (*Convolvulus Major*) (See also, *Ipomea*).—Free flowering, beautiful climbers with rich and varied colored flowers, very useful for covering lattice work, verandas, etc., where they are exceedingly effective.

Imperial Japanese.—(Pkt. 5c) (oz. 25c).

Major Tall Mixed.—(Pkt. 5c) (oz. 15c).

Minor Dwarf Mixed.—A beautiful hardy bedding and border plant, attaining a height of about 1 foot. (Pkt. 5c) (oz. 15c).

MOURNING BRIDE (See *Scabiosa*)

MUSK PLANT (See *Mimulus Moschatus*)

MYOSOTIS (See *Forget-Me-Not*)

* We have endeavored to make this

* catalog one of much interest to you,

* and request that you do not destroy

* it until you get our 1918 book.

* On pages 9 and 10 you will find

* some hints and suggestions, and on

* page 73 you will find much assistance

* in making your selection of

* seeds. On the inside back cover page

* you may learn when to plant the

* different varieties.

* See the pages on Fertilizers and

* Insecticides, for you will need both

* in the successful growing of Flow-

* ers.

**Nasturtium Dwarf**

NASTURTIIUMS (Culture).—To grow Nasturtiums well and secure a fine display of flowers, it is necessary that the soil in which they are grown be very poor and dry, otherwise a superabundance of foliage will be produced to the exclusion of the flowers.

Dwarf or Tom Thumb Varieties.—Annual, 8 inches to one foot tall; useful for bedding and borders, flowering through the summer and also through the winter in location where they are not cut by frost.

Giants of Calif. Mixed.—This mixture is composed of the finest and most distinct varieties in this grand free flowering type. (Pkt. 5c) (oz. 15c) (¼ lb. 50c).

NEMOPHILA, OR LOVE GRASS.—A hardy annual about six inches high. Has small, cup-shaped blossoms about one inch in diameter, in white and shades of blue.

Insignis Alba.—A pure white flowered variety. Pkt. 5c.

Insignis (Baby Blue Eyes).—Sky blue, with white eyes. Pkt. 5c.

Maculata.—White, with each petal spotted violet at tip. Pkt. 5c.

NICOTIANA, OR FLOWERING TOBACCO.—A half hardy annual, growing 3 feet high, with slender tubular flower. Belongs to the tobacco family. Requires plenty of room in the garden.

Affinis.—White, and very fragrant. Pkt. 5c.

Grandiflora Purpurea.—Reddish-purple flowers. A robust ornamental variety, excellent for sub-tropical garden, height 5 feet. Pkt. 5c.

Sanderaea.—A new, large, flowering type, with various bright-colored blossoms. Pkt. 10c.

NIGELLA (or Love-in-a-Mist).—A hardy annual, one foot high, with finely cut foliage. Oddly shaped blossoms in blue and white, and curious seed pods. Of easy culture.

Miss Jekyll.—Long stemmed flowers which are of a clear corn-flower blue, elegant foliage, height 18 inches. Pkt. 5c.

OENOTHERA (or Evening Primrose).—An attractive hardy perennial border plant of dwarf compact habit, producing an abundance of bright showy flowers, in white, pale yellow, rose, etc. Of very easy culture, preferring a light, dry soil.

Fine Mixed.—Height 6 inches. Pkt. 5c.

PENTSTEMON

Hartwegi Hybrida Mixed.—The large Gloxinia shaped blooms vary from pure white, pink, rose and crimson to mauve and purple, including many which are beautifully edged. Hardy perennials. Height 2 feet. Pkt. 10c.

Pansy Psyche.—Not many of the pansy varieties have such a winning appearance as Psyche. The characteristic five velvety, violet blotches are surrounded by a broad white edge. It is an ideal exhibition or market pansy. Pkt. 15c.

Giant Curled Andromeda.—A charming strain of pansy with elegantly frilled flowers, some so full as to appear double. The color is a very delicate apple-blossom, generally showing a soft lavender blue or rosy lilac hue, rendered still more effective by a somewhat darker veining. The blooms are of immense size. Unusually true to color from seed. A decided acquisition. Pkt. 20c.

Lord Beaconsfield.—Purple-velvet upper petals shading off to a light tint. Flowers large. Pkt. 10c.

Masterpiece Exhibition.—The finest strain of pansies in cultivation, saved only from the largest and best shaped flowers of the richest colors which are elegantly curled and undulated, some so full as to appear double. Pkt. 25c.

Madam Perret.—Striking and distinct variety of unusually compact habit. The lower petals are generally of canary-yellow, white or rose-pink marked with purple or crimson. The upper petals bright red and deep purple or outlined with a margin of white. Pkt. 10c.

Odier Cassier Bugnot Mixed.—This mixture is unsurpassed. Contains the very best of each of the varieties. Pkt. 25c.

Odier Mixed.—Extra choice; very fine strain of three and five blotched show pansies. Pkt. 10c.

SUPERB PANSIES

All our Pansy seed is obtained from the most noted European specialists. Pansies thrive best in a moist, shady location and in rich loamy soil. Seed should be sown in the autumn for early spring blossoms, or can be sown early in the year for good flowers later in the spring. The plants must be transplanted twice in order to get the largest flowers; once from the seed box to a chosen bed, and again to the open garden. This is important for large size pansies; use manure liberally. The blossoms are usually larger in the spring and again in the fall, and while they bloom freely all summer, the blossoms are small during the hot months.

Benary's Non Plus Ultra.—The richest mixture ever sent out. Contains the Blotched and Masterpiece varieties. Pkt. 25c.

Bridesmaid Giant.—Shades of white shining rose, blotched. Pkt. 15c.

Bugnots Superb Blotched.—Very beautiful class, of enormous flowers with broad blotches, many having the two upper petals finely lined, showing a great diversity of handsome and rare colors. Pkt. 15c.

Cassiers Large Flowered Blotched.—The largest flowered class of blotched pansies. An incomparable strain, producing many beautiful and rare varieties. Pkt. 15c.

Giant Eros.—This grand novelty produces very large flowers of a deep velvety brown color, with a broad golden yellow margin. The back of each bloom has the same broad margin as the front side, while the dark velvety center is shining through. Pkt. 15c.

Emperor Frederick.—Dark red, bordered with orange scarlet. Pkt. 10c.

Emperor William (Ultramarine Blue).—Of fine texture, very showy. Pkt. 5c.

English Mixed.—The old faced pansy plant of compact habit. Pkt. 5c.

Faust (King of Blacks).—Large, well formed, glossy black flowers. The plants are compact and bloom for a long time. Pkt. 10c.

French Large Flowered Mixed.—An excellent strain. Pkt. 10c.

EXTRA FINE GIANT-FLOWERED PANSIES

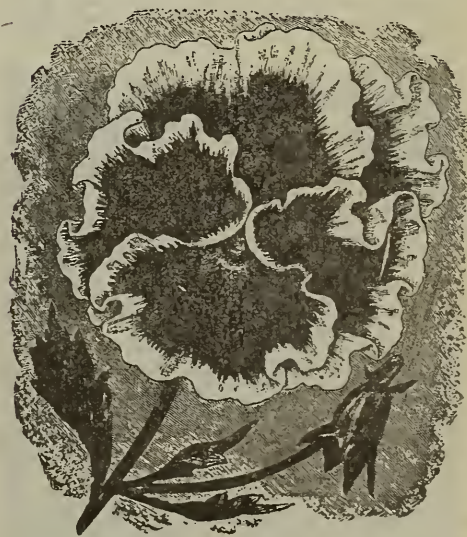
Giant Pale Blue.—Gigantic blooms of a delicate mauve-blue shade with paler center, freely produced on compact plants. Pkt. 10c.

Giant White (Black Eye).—Large well formed flowers with black center. Pkt. 10c.

Giant White.—Very large, well formed white flowers with dark purple eye. Pkt. 10c.

Giant Yellow (Black Eye).—Large handsome flowers of a rich yellow with black eye. Pkt. 10c.

Giant Prince Henry.—Darkest blue, very large beautiful flower. Pkt. 10c.

**Pansy Psyche**

PANSY (Continued).

Parisian Large Stained Mixed.—Beautiful improved strain of Trimardeau pansies, mostly white ground and fine blotched varieties. Pkt. 10c.

President Carnot.—Odier type, white petals with violet blotch. Pkt. 15c.

Striped and Mottled.—Large flowers handsomely striped and mottled. Pkt. 10c.

Trimardeau or Giant Mixed.—A very showy class of vigorous compact growth, flowers of an enormous size, finest strain. Pkt. 10c.

Triumph of the Giant.—Very large frilled blooms. A great variety of rich and beautiful colors. Very showy class. Pkt. 25c.

Violet Purple.—Handsome flowers of a rich purple. Pkt. 10c.

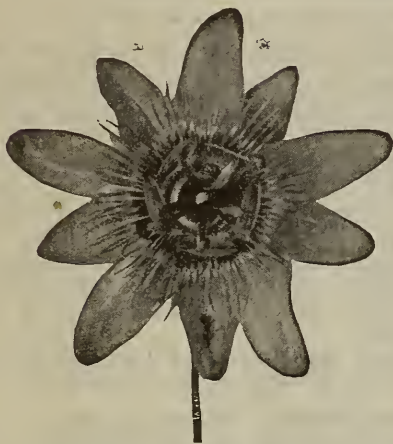
PASSION FLOWER.—A hardy perennial climber, very satisfactory for immense growth, as it will cover a porch or small cottage in one season.

Passiflora Edulis.—See page 7.

Alba.—Pure white. Pkt. 10c.

Coernica Grandiflora.—Sky-blue. Pkt. 10c.

Pink.—Pkt. 10c.



Passion Flower

PETUNIA.—A splendid race of plants, rich and varied colors, and profuse flowering with their charming and tender looking flowers, they are very beautiful for groups in the open. For pot culture also, Petunias are almost unsurpassed. Sow seed early in spring, scatter thinly on an even surface and barely cover the seed with sand. If intended for the open ground plant out into a frame to be kept till planting-out time. If for pots, pot singly into small pots in strong rich soil mixed with sand and shift as the plants grow larger.

Fimbriata.—The most imposing Petunia yet introduced. Large finely imbricated flowers of a great diversity of charming colors. Pkt. 20c.

Grandiflora Single Mixed.—Exceedingly handsome and free flowering, containing the greatest variety of colors, yellow throated, veined and blotched. Very large flowers. Pkt. 15c.

Hybrida Fine Mixed.—The best Petunia for massing in beds and borders, yielding a profusion of brilliantly marked flowers. Pkt. 5c.

Superb Double Fringed Mixed.—One of the finest strains of Petunias in existence. The double flowers are very large, full and symmetrically formed, having the edges of the petals beautifully fringed. Pkt. 35c.

PHLOX DRUMMONDII. Grandiflora.—A hardy annual, growing from six inches to one foot high and bearing beautiful, soft-petaled and brilliantly colored flowers all spring and summer. Fine for bedding and massing. Sow seed in the fall for early flowers.

Cuspidata (or Star Phlox Stella).—A flower a color which strongly resembles that of the popular dwarf sort Fireball. Excellent for dwarf groups and for pots. Height, 1 foot. Pkt. 15c.

Drummondii Grandiflora Alba.—Pure white flowers, very large and perfectly formed. Height, 2 feet. Pkt. 5c.

Drummondii Fireball.—Habit similar to the Snowball; color brilliant red; flowers profusely. This and Snowball are two of the most effective varieties of Phlox in existence. Height, 1 foot. Pkt. 10c.

Drummondii Dwarf Mixed.—A selection of brilliant colors, strongly recommended for beds, edgings or borders. Pkt. 5c.

Isabellina.—A splendid strain of Phlox; flowers of a soft primrose color. Height, 2 feet. Pkt. 10c.

Finest Mixed.—Pkt. 10c.

Perennial.—Indispensable for border plant. Seed saved from the finest bright colored flowers. Height, 2 feet. Pkt. 10c.



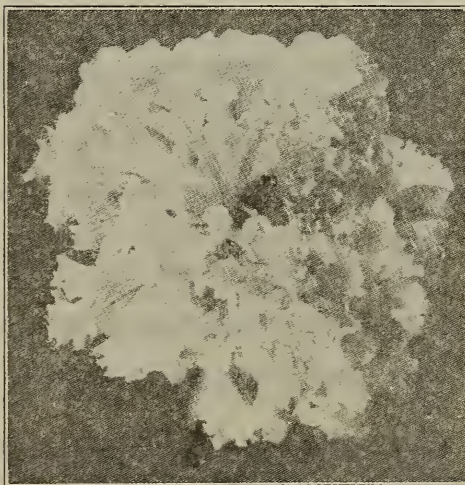
Poppy Charles Darwin

POPPIES.—The different varieties of poppies are always favorites for outdoor display and the cultivation of them being so extremely simple entitles them to a place in every garden. Seed should be sown where the plants are intended to flower, because it is difficult to transplant them with any measure of success. During March or April sow in rows or groups and thin to about 1 foot apart.

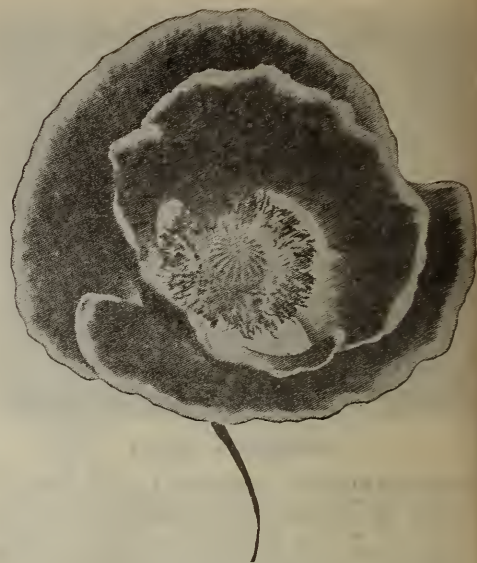
Admiral.—Large, pure white, single paeony flowered variety, with band of brilliant scarlet around the top. Pkt. 5c.

Carnation Double Mixed.—Choice assortment of brilliant colors. Flowers very double and well fringed. (Pkt. 5c) (oz. 20c).

Charles Darwin.—Handsome flowers of a rich dark purple, with a large velvety black spot starting from the base of each petal. Pkt. 15c.



Double Fringed Petunia



Poppy Shirley

Glancum (Tulip Flowered).—Beautiful variety, producing flowers of the most vivid scarlet, effective for beds or masses. Pkt. 5c.

King Edward.—With this new novelty we have added to the rich collection of single annual Poppies growing 2½ feet in height, deep scarlet, shaded crimson red of gorgeous effect, which is heightened by the large black blotch adorning each petal for half its length from the base. From this sable hue the yellow anthers stand out in appropriate contrast. Pkt. 15c.

Mikado.—Effective double poppy with deeply lacinated petals; white and rose above. Pkt. 5c.

Nudicaule (Iceland Poppy).—A beautiful class of dwarf Perennial Poppies, which if sown in March will flower the same year. The blossoms are bright yellow, borne on slender stems about 1 foot high. Useful for cutting and the flowers exhale an agreeable perfume. Pkt. 5c.

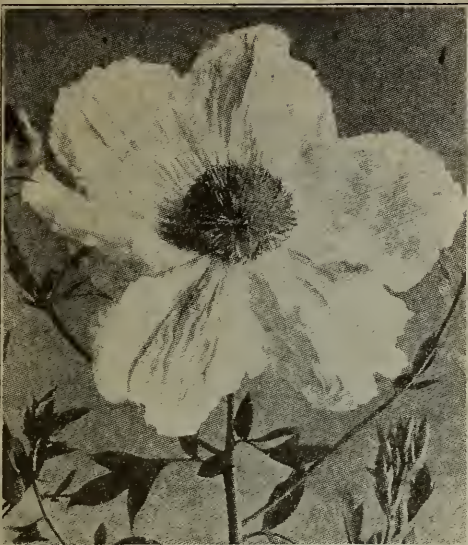


Poppy King Edward

Shirley.—The most charming poppy in cultivation. The blossoms are bright and showy and include an almost endless variety of colors, from pure white, pink, terra cotta, salmon, chamois, and rosy carmine, to brilliant crimson, many of the flowers being beautifully flaked or edged with white. (Pkt. 5c) (oz. 25c)

Virginian Poppy.—This new large flowering poppy of the annual class produces beautiful large, white flowers with fringed soft pink edge. Cut flowers in vases, etc., are of quite a charming effect, and are for this purpose especially recommended as they are very lasting when cut in the morning, as a color-showing bud. Pkt. 10c.

See Pages 9 and 10 and Inside Back Cover.



Romney's Coulterii

ROMNEYA COULTERII (California Tree Poppy).—Also well known as the Matijila Poppy; perennial. It is of value as a cut flower, lasting well in water, and its delicate primrose-like perfume is most acceptable. They never lose the crumpled folds that in the case of most poppies betoken newly-opened state. Flowers are four to five inches across, pure white, with a fine bunch of yellow stamens, resembling white, single peonies. **Pkt. 10c.**

LARGE PRIMULA, or CHINESE PRIM-ROSE.—Charming profuse blooming plants, indispensable for winter and spring decoration in the house. For a succession of blooming plants sow the seed from March to May and again in July or August. In planting, cover the seed lightly and keep moist, transplant when the second leaf appears and keep replotting the plants as they grow and increase in size.

Auricula.—Choice mixed, saved from all the best sorts, embracing many delicate and brilliant shades. **Pkt. 15c.**

Chinensis Fimbriata Mixed.—Beautiful fringed flowers of gigantic size and great substance. Foliage elegantly curled. **Pkt. 25c.**

Chinensis Stellata or (Star Primula) Mixed.—A distinct and beautiful class; will be found indispensable for general decoration work. **Pkt. 25c.**



Pyrethrum

Japanica Mixed.—Bright and snowy flowers, borne in whorls and stems 6 to 8 inches long. **Pkt. 10c.**

PYRETHRUM.—Handsome plants of easy culture. Invaluable for bedding purposes, especially for ribbon borders.

Golden Feather.—Fine compact habit of growth, with bright yellow foliage, largely used for edgings and ribbon borders. Height, 9 inches. **Pkt. 10c.**

Roseum.—A hardy perennial, with red petaled flowers radiating from a golden yellow center. Buhach, or insect powder, is made from the dry leaves. **Pkt. 5c.**

Selagionides.—A distinct form with moss-like foliage, quite as bright in color as the Golden Feather and does not flower until late in the season. Height, 6 inches. **Pkt. 5c.**

PORTULACA.—Beautiful race of dwarf plants for rock work or dry sunny locations, bearing glossy cup-shaped blossoms in brilliant colors.

Double Mixed.—Saved from the finest flowers only, and will produce a large percentage of doubles. **Pkt. 10c.**

Single Mixed.—Large flowers. **Pkt. 5c.**

RICINUS (Castor Oil Plant).—Effective for semi-tropical gardens. Easily raised from seed, and should be grown in deep, rich soil.

Ricinus Gibsoni.—A very fine variety with rich, lustrous, red foliage. Height, 5 feet. **(Pkt. 5c) (oz. 15c).**

RUDBECKIA (Bicolor Superba)

Coneflower.—Fine free flowering annual variety, forming a dense bush and producing in great abundance on long stems its bright flowers. The disc is brown, the flowers golden yellow, with large velvety brown spots at the base. Very effective and useful for cutting. **Pkt. 10c.**

Laciniata.—A single, bright yellow perennial plant, blossoming in the late summer. Four to six feet tall. The double form, known as Golden Glow, is propagated by division of the root crown. **Pkt. 10c.**

SALPIGLOSSIS

Fine Mixed.—Highly ornamental half-hardy annual with large, veined, funnel-shaped flowers; much prized for cutting; very showy in beds or border. A bed of these beautiful plants is one of the most striking features of the garden during July and August. **Pkt. 5c.**

SALVIA, OR FLOWERING SAGE.—A tender perennial blooming the first season from seed and growing two or three feet high. The blossoms are borne on long stems in racemes or spikes, and are fragrant.

Patens.—Valuable for bedding; bright blue flowers. Height, 2½ feet. **Pkt. 10c.**

Splendens.—Gorgeous plants, with numerous flowers, which are displayed with striking effect against the deep green foliage. A bed of this flower is exceedingly beautiful during the autumn. Height, 2 feet. **Pkt. 5c.**

SCARLET FLAX. See *Linum*.

SCABIOSA, OR MOURNING BRIDE.—The tall flowers are especially adapted for cutting and massing in the garden. Annual (self-sown in California), 2½ to 4 feet high. These new flowers are double clear to the center, covering the thimble-shaped cone.

Tall Double Mixed.—Immense flowers; very double. **Pkt. 5c.**

Dwarf Double Mixed.—Beautiful colors; very effective. Height, 12 inches. **Pkt. 5c.**

Caucasia.—A highly decorative variety. Flowers large and of a soft mauve or heliotrope color. Height, 2 feet. **Pkt. 10c.**

Snowball.—Large head of lovely pure white flowers. Height, 3 feet. **Pkt. 5c.**

SCHIZANTHUS.—Very beautiful and interesting annuals. Indispensable for green house and conservatory decoration or outdoor culture.

Wisetonensis.—Flowers large and of various pleasing shades. Height 2 feet. **Pkt. 15c.**

Finest Mixed.—A mixture of all the most showy varieties, height 2 feet. **Pkt. 5c.**

SENSITIVE PLANT.—An interesting plant, the leaves of which close when touched; elegant foliage; flowers pink. **Pkt. 5c.**

SUPER-SENSITIVE PLANT.—(ALMOST HUMAN.) A Botanical Curiosity.—So sensitive is this plant that if touched the leaves will fold and stems drop down. A lighted match being applied to one of the leaves, it will cause the whole plant to violently close up as if in pain. If a glass jar with a piece of cotton saturated with chloroform is placed over the plant, it will cause it to slowly sleep. At night the plant closes; at daylight it opens. The plant will grow to a height of from two to four feet, has beautiful green leaves and pretty pink flowers. Price of seed, 5c per packet.



California Double Sunflower

SUNFLOWER (Helianthus).—Stately, hardy annuals of easy culture. The smaller flowered varieties being also useful for cutting.

California Double.—Large, massive, bright yellow flowers, height 6 feet. **Pkt. 5c.**

Double Dwarf.—Very attractive variety covered with an abundance of golden yellow flowers, height 3 feet. **Pkt. 5c.**

Miniature.—Very popular Sunflower of branching habit, producing in great abundance, small golden yellow flowers with black centers. Exceedingly valuable for cutting. Height 4 feet. **Pkt. 5c.**

New Red Sunflower is a very apt description of this new variety. The plant is of freely branching habit, with well-shaped, dark-centered flowers of bright chestnut red, merging to yellow at the tips of the petals, height 6 feet. **Pkt. 15c.**

SNAPDRAGON. See *Antirrhinum*.

STATICE (Sea Lavender).—Splendid hardy perennials, with tufted grass-like foliage, from which issue long stems terminating with large globular heads of rose pink flowers. Sometimes called sea pinks.

Suvorovi.—Flowers bright rose color. Valuable for winter bouquets. **Pkt. 5c.**



New Red Sunflower

STOCKS (Ten Weeks' Stocks, or Gilli-flowers; Levoje).—The stock is one of the many popular plants used for bedding. For brilliancy and diversity of color, fragrance, profusion and duration of bloom it is unsurpassed. Hardy annual.

Apple Blossom.—The long spikes of apple-blossom flowers are produced on plants of compact habit. Pkt. 10c.

Empress Elizabeth.—Carmine pink spikes of double flowers. Height, 15 inches. Pkt. 10c.

Giant Almond Blossom.—Quick growth with flowers of a very large size. The color is white shaded carmine. Pkt. 15c.

Giant Beauty of Nice.—Branching; excellent for winter if sown in July or August. Delicate flesh pink spikes of double flowers. Height 2 inches. Pkt. 10c.

Giant Crimson King.—Long spikes, of a rich crimson color. Pkt. 15c.

Giant Queen Alexandra.—Similar to the above except in color, which is rosy lilac. Pkt. 15c.

Mont Blanc.—This is indeed a wonderfully fine type of the largest white sweet-scented flowers. This variety can be cultivated either as a summer or as a winter stock, and owing to its unrivalled freedom of bloom will be found excellent for bedding or for culture. Pkt. 20c.

White Lady (White Empress Elizabeth) New, massive spikes of strikingly large and very double snowy white flowers. Height, 20 inches. Pkt. 25c.

PERPETUAL, OR BRANCHING.—Cut and come again, 10 weeks; are especially valuable during summer and winter for cut flowers. They grow out numerous side branches, all bearing very double fragrant flowers.

Brompton or Winter Finest Mixed.—These varieties give a large percentage of double flowers of a pleasing combination of colors. Plants of a compact habit. Pkt. 10c.

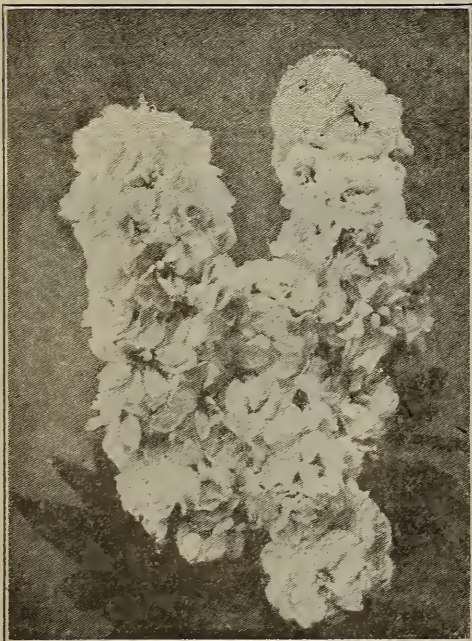
Dwarf German Ten Weeks.—Finest mixed brilliant colors only. Pkt. 10c.

Giant Perfection Ten Weeks Mixed.—Branching habit; very large and full double flowers, the plants growing to a height of 15 to 18 inches. Pkt. 10c.

Large Flowering Dwarf Ten Weeks Mixed.—A fine type of the ordinary large flowered strain. A large percentage of the flowers coming double. Pkt. 10c.

Princess Alice.—Beautiful white flowers. Excellent for cutting. Pkt. 10c.

Perpetual or Branching Mixed.—Finest assorted colors. Pkt. 10c.



Branching Stock

SWEET PEAS

We are headquarters for strictly high grade sweet pea seed; they are the best that money can buy.

Culture.—Sweet peas will thrive on most any kind of soil if enriched with well-rotted manure, but a heavy clay soil produces best results. Ample arbor should be provided to attain highest perfection of bloom. The vines will grow eight feet tall and become a solid mass of bloom, which should be cut every day to prolong the life of the plant. Apply from time to time some Blood Meal fertilizer, and water abundantly, but see that there is good drainage, that the roots do not rest in wet, sour earth.

SWEET PEAS—GIANT SPENCER TYPE

Aggeler & Musser Selected Giant Orchid Flowering Sweet Peas.—A grand new class of Sweet Peas, having large, round open flowers of extraordinary size, often two inches across, with wavy standard and wide spreading wings. Bears profusely, often four flowers on a stem.

American Spencer.—Scarlet striped with white. (Pkt. 10c) (oz. 25c).



Othello Spencer

Asta Ohn, Spencer.—Soft pinkish lavender, self. Very large and wavy. (Pkt. 10c) (oz. 25c).

Black Knight, Spencer.—Deep maroon, very large. (Pkt. 10c) (oz. 25c).

Clara Curtis, Spencer.—Very large, wavy cream or light primrose. (Pkt. 10c) (oz. 25c).

Countess Spencer.—"Hybrid," a very large flowered variety, a lovely shell pink but sports various shades of pink, rose and lavender. Flowers usually four on a stem. (Pkt. 10c) (oz. 25c).

Dainty Spencer.—White with pink wavy edges. (Pkt. 10c) (oz. 25c).

Elfrida Pierson Spencer.—Light pink or white edged and shaped. (Pkt. 10c) (oz. 25c).

Florence Morse Spencer.—Delicate blush with pink margin; very large and one of the best Spencer varieties. (Pkt. 10c) (oz. 25c).

Etta Dyke Spencer.—Very large wavy, pure white. (Pkt. 10c) (oz. 25c).

Geo. Herbert Spencer.—A large Spencer rose crimson, suffused with magenta. (Pkt. 10c) (oz. 25c).

Helen Lewis Spencer.—Bright orange salmon. Very large, beautifully waved. (Pkt. 10c) (oz. 25c).

King Edward Spencer.—Most beautiful and richest of all the red shades. This large beautiful waved flower stands by itself, a bright crimson scarlet. (Pkt. 10c) (oz. 25c).

Loyalty Spencer.—Bright blue striped on white. (Pkt. 10c) (oz. 25c).

Margaret Madison Spencer.—Beautifully waved, light blue. (Pkt. 10c) (oz. 25c).

Mrs. Hugh Dickson Spencer.—Beautifully wavy apricot on cream. (Pkt. 10c) (oz. 25c).

Mrs. Routzahn Spencer.—A beautiful blending of straw color, tinted with blush pink and shading to apricot and rose at edges. (Pkt. 10c) (oz. 25c).

Othello Spencer.—Deep rich maroon, very dark and adapted for many attractive combinations. (Pkt. 10c) (oz. 25c).

Queen Alexandra Spencer.—The nearest approach to a true scarlet. (Pkt. 10c) (oz. 25c).

Spencer Mixed.—A splendid mixture of all the different Spencer types. (Pkt. 10c) (oz. 25c).

SELECTED GRANDIFLORA TYPES IN SEPARATE SHADES

Blanche Ferry.—Rose standard, tinted with light pink. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Brilliant Blue.—A dark stain of navy blue. (Pkt. 5c) (oz. 20c) (¼ lb. 45c).

Dorothy Eckford.—White, large shell-shaped. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Helen Pierce.—Clear blue marbled on ivory white, frequently called Gloxinia flowered on account of its speckled effect. (Pkt. 5c) (oz. 20c) (¼ lb. 45c).

Henry Eckford.—Very large orange scarlet. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Hon. E. Kenyon.—A fine large primrose yellow. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

King Edward, Seventh.—Bright showy scarlet. (Pkt. 5c) (oz. 20c) (¼ lb. 45c).

Lady Grisel Hamilton.—Delicate silvery lavender. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Miss Willmott.—Bright orange pink showing veins of deeper pink. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Othello.—Deep maroon, very large, finest type. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Prima Donna.—The most popular clear pink hooded. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Prince of Wales.—Popular rose colored. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Queen Alexandra.—The nearest approach to a true scarlet. (Pkt. 5c) (oz. 15c) (¼ lb. 40c).

Mixture representing all shades.—(Pkt. 5c) (oz. 15c) (¼ lb. 30c) (1 lb. \$1.00).



Queen Alexandra

UNWIN TYPE

A. J. Cooke.—Large mauve blue with waved standard. (Pkt. 5c) (oz. 25c).

E. J. Castle.—Fine carmine rose, waved standard. (Pkt. 5c) (oz. 25c).



Countess Spencer

Frank Dolby.—Fine Pale mauve self, with wavy standard. (Pkt. 5c) (oz. 25c).

Gladys Unwin.—Large frilled standard and open waves, pretty pale pink shade. (Pkt. 5c) (oz. 25c).

Nora Unwin.—Large frilled white flower. (Pkt. 5c) (oz. 25c).

CUPID OR DWARF SWEET PEAS.—The Cupid varieties are very showy and splendid for bedding. Height six inches. Plant the seed six inches apart. Mixed.—(Pkt. 5c) (oz. 25c).

WINTER FLOWERING SWEET PEAS.

A valuable race of early flowering sweet peas, which from a September sowing will give an abundance of blooms from Christmas onward. On account of their delightful perfume, sweet peas are particularly welcome during the days of winter.

A. & M. Xmas Dark Blue.—Pkt. 5c) (oz. 25c).

A. & M. Xmas Lavender.—(Pkt. 5c) (oz. 25c).

A. & M. Xmas Pink and White.—(Pkt. 5c) (oz. 25c).

A. & M. Xmas Red.—(Pkt. 5c) (oz. 25c).

A. & M. Xmas Soft Pink.—(Pkt. 5c) (oz. 25c).

A. & M. Xmas White.—(Pkt. 5c) (oz. 25c).

A. & M. Xmas Mixed.—(Pkt. 5c) (oz. 25c).

Perennial or Everlasting See Lathyrus.



Sweet William

SWEET SULTAN. See Centaurea Moschata.

SWEET WILLIAM (Dianthus Barbatus).

A hardy perennial, blooming the second year from seed. Grows one to two feet high and bears its flowers in clusters, at the end of a stiff stem. The individual flowerets are handsomely colored and marked. It makes a beautiful bedding plant, and is of easy culture.

Single Varieties, Mixed.—More attractive than the double. (Pkt. 5c) (oz. 25c).

Double Varieties, Mixed.—Pkt. 5c.

THUNBERGIA (or Black-eyed Susan).—A hardy climber, growing about four feet long, and valuable for low fences or hanging baskets. Prefers a sunny situation. Blossoms are buff, orange or white, with dark centers. Mixed. (Pkt. 5c).

TROPAEOLUM CANARIENSIS. See Canary Bird Flower.

VERBENA.—A half hardy trailing perennial of easy culture. It is well known as a bedding or border plant, and the improved large flowered and fragrant strains make it a handsome cut flower for low vases.

Mammoth Flowered, Mixed.—(Pkt. 10c) (¼ oz. 35c) (oz. \$1.25).

Mammoth Rose Queen (new).—Large brilliant rose. A splendid bedding plant. (Pkt. 20c).

Pink Shades.—Mammoth strains of rose and pink shades. (Pkt. 10c) (¼ oz. 35c) (oz. \$1.25).

Pure White.—Mammoth strain. (Pkt. 10c) (¼ oz. 35c) (oz. \$1.25).



Zinnia Grandiflora Robusta Plenissima

Purple and Blue Shades.—Mammoth strain. (Pkt. 10c) (¼ oz. 35c) (oz. \$1.25).

Scarlet Defiance.—Brilliant scarlet. (Pkt. 10c) (¼ oz. 35c) (oz. \$1.25).

Vinea, or Madagascar Periwinkle.—A tender perennial, with ornamental foliage. Blooms freely the first year from seed. The trailing blue Vinea or Myrtle never seeds. Mixed. Rose, Crimson, white, etc. Pkt. 5c.

VIOLETS.—Hardy perennials, blooming freely throughout the summer and autumn. Of easy culture.

Viola Cornuta Purple.—Fine, rich, purple. Pkt. 10c.

Viola Cornuta White.—Pure white flowers, freely produced. Pkt. 10c.

The Czar.—Large, fragrant, deep violet flowers. Pkt. 10c.

Princess of Wales.—Largest flowering deep blue. Pkt. 10c.

Single, Sweet-scented.—(Pkt. 10c) (oz. \$1.00).

VIRGINIA CREEPER (Ampelopsis Quinquefolia).—Perennial climber. Large leaves which color in the fall; also bears clusters of dark fruit; flowers inconspicuous. Very ornamental and easily raised from seed. Height, 30 feet. (Pkt. 5c) (oz. 50c).

VIRGINIA STOCKS.—A hardy annual, growing about 9 inches high; can be had in continuous bloom by sowing the seed at frequent intervals during spring and summer.

Red and White Mixed.—(Pkt. 5c) (oz. 15c).

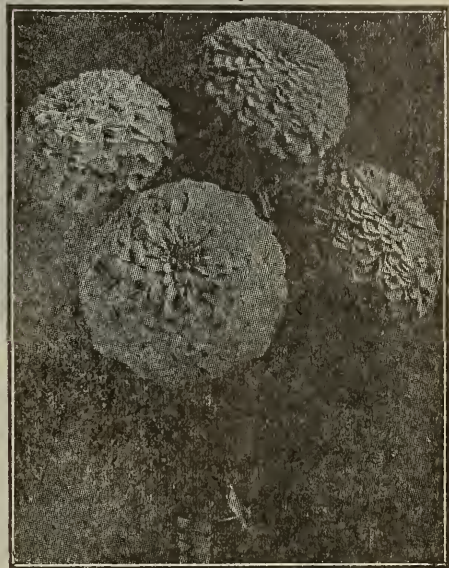
WALL FLOWER.—These delightfully fragrant flowers are indispensable for every garden. Height, 18 inches.

Double Mixed.—Pkt. 10c.

Single Mixed.—Pkt. 5c.

WISTERIA.—A tall, rapid-growing vine with feathery foliage and handsome flowers. The glorious blossoms, radiant in their inherent ornamental splendor, are profusely borne in long drooping clusters in mid-spring and gleam in soft tones of violet-purple.

Chinensis.—Violet purple. Pkt. 10c.



Zinnia

ZINNIA.—For gorgeous summer and autumn display, there is nothing that can equal in effectiveness the improved, compact-growing, large-flowering Zinnias; grow only 2 feet high and bear flowers of immense size and of the most brilliant colors.

Elegans Single Mixed.—Pkt. 5c.

Giant Golden Yellow.—Pkt. 15c.

Haageana (Golden Star).—Pkt. 10c.

Giant Pink.—Pkt. 10c.

Giant Purple.—Pkt. 10c.

Giant Rose.—Pkt. 10c.

Giant Scarlet.—Pkt. 10c.

Giant White.—Pkt. 10c.

Dwarf Double Mixed.—A valuable class only about fifteen inches high, very free blooming; flowers as large as the ordinary double Zinnia. Pkt. 10c.

DOUBLE GIANTS (Grandiflora Robusta Plenissima).—The largest variety in existence. The blossoms are globe shaped, very large and numerous colors. Plants are taller than other varieties.

Mixed.—Pkt. 10c.

GARDEN HELPS

See list of agricultural books, page 14. California Garden; Flowers, Shrubs, Trees and Vines, by Wickson. \$1.60 postpaid.

Garden Beautiful in California, by Brauton, \$1.10 postpaid.

See pages 9 and 10 for hints and suggestions.

If interested in a vegetable garden, see pages 11 and 12.

Read page 13. It is interesting. Do not destroy this book. It contains much valuable information that is needed every day.

This book is an abbreviated encyclopedia of agriculture.

Plant Department

We do not maintain a nursery, but in our never-ending research we are continually finding something new with promise of exceptional merit.

This year we are offering some Persian grapes of great merit, and probably unknown in Southern California, as the propagator, Mr. Walton, claims to have himself brought them from Persia. The vines are now growing on alkaline soil that destroys apple trees, and where the blue alkali weed is abundant.

PERSIAN GRAPES

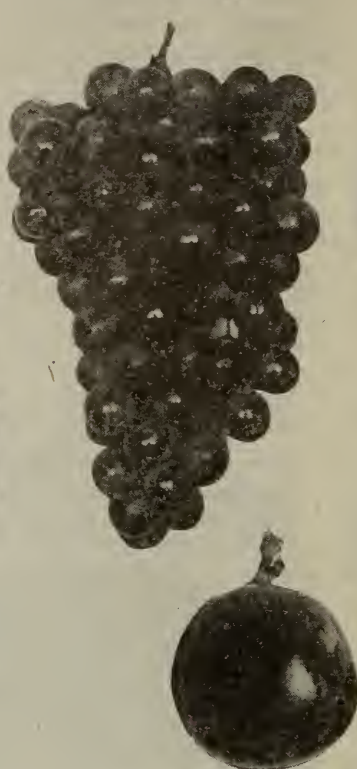
Kaum

Black Damson

Hamadan



Actual Size



Actual Size



Actual Size

Karum (From the Valley Karum, Persia. A long white grape of delicious flavor and so few having seeds that it is almost a seedless variety, forming enormously large clusters. It is a good keeper and should prove a good shipping variety.

Black Damson The exceptional merit of this variety is its good flavor, enormous productiveness, even bearing the first year from cuttings, and its hardiness to resist cold, heat, winds, and on account of the hardy skin, it is likely to prove a better shipper than any of the known varieties.

Hamadan (From the Valley of Hamaden, Persia). For table use probably the best of the three. Compares with the Muscat, but much superior in every respect. It is almost seedless, and should prove a good shipper.

All three varieties are deliciously sweet, and when properly trellised are enormously prolific; ideal for the grower of table grapes, and every home garden should have one of each of these grapes.

One year old rooted vines, any variety, 50c postpaid.

One each of the three varieties \$1.25 postpaid.

Ten or more vines any variety, 30c each, f. o. b. here.

Passiflora Edulis

Passion Vine



Fruiting Passion Vine

The Passion Vine thrives in California. It is not yet well known, however, and hence its fruit has not come into general use. In Australia it is extensively grown.

The fruit is the size of an egg, and contains a pulp of exceedingly good flavor. It is consumed much in the manner as an egg—that is, by cutting off one end and removing the contents with a spoon. The pulp is also used as a flavoring for cakes, ice-creams, drinks and sweetmeats, and is a much appreci-

Grapes, Local Varieties

One-year-old rooted cuttings. Price, prepaid—Muscat, Red Emperor, Black Morocco, Rose of Peru, Black Hamburg, Cornichon, Madera, Thompson Seedless, Tokay, California Concord, Eastern Concord, (Each 15c) (dozen \$1.25) postpaid; (100 \$6.00) f. o. b. here. Write for quantity price.

ated addition to fruit salads. It packs and ships well.

The vine is a vigorous grower, and well suited to use on trellis or screen frames. It is quite hardy.

Price, large plants in 4-inch pots, 50c each, f. o. b. here; 60c postpaid. Seeds, per kpt. 10c.

Pumpkin Fruited Passion Vine

A New Fruit from Brazil

This new vine is described by the introducer as a very rapid grower, with flowers the same as Passiflora Edulis, but hold much longer. The fruit is edible and grows to weigh as much as eight pounds. The vine is quite hardy for Southern California, and is not attacked by caterpillars.

The above description is furnished by the introducer, whom we know to be dependable, and we therefore recommend it to you.

Plants from 1 foot to 2 feet, 60c each, postpaid.

Larger plants in 1 gallon cans, \$1.00, f. o. b. here.

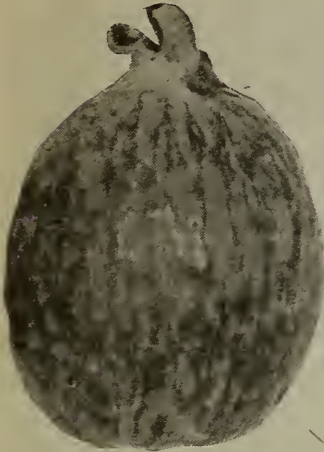
White Sapote—Plants 2-3 ft. high, 75c, f. o. b. here; \$1.00 postpaid.

Cherimoya—Plants 2-3 ft. high, \$1.00, f. o. b. here; \$1.25 postpaid.

Natal Plum—Plants in 4-in. pots, 50c, f. o. b. here; 75c postpaid.

Strawberry Guava—Plants in 3-in. pots, 10c, f. o. b. here; 20c postpaid. Fine plants in flats of 100, \$5.00 f. o. b. here.

Feijoa Sellowiana



Feijoa average size

A relative of the common guava, but very much superior to it. The fruits, which mature in December, are delicious, and a few of them will perfume a room with a pleasing fragrance. Is especially hardy, stands frost down to 10 degrees above zero. The flower is sufficiently beautiful so that the Feijoa is properly classed as an ornamental shrub also. In groups or as a hedge it is very desirable. It is well worthy of commercial planting.

Our stock is the choicest procurable. Fine, field grown plants, two feet high or over, \$1.50.

Special prices on large orders.

Seed—They are readily grown from seed, bearing the second year.

(25 seeds 15c) (50 seeds 25c)
(100 seeds 45c) (1000 seeds \$3.00) postpaid.

Berries



This picture plainly shows an easy way to make a trellis upon which to train all berries that have trailing vines. By this method cultivation is made easy, and by keeping the vine trimmed and trained closely to the trellis, picking is easy and convenient.

Drive stakes sixteen feet apart along the berry rows. Nail cross pieces on top of the stakes, and stretch wire somewhat heavier than baling wire along the row on each side of the stake, and attach with staples to each end of the cross pieces.

For Dewberries, the stakes should be 2 ft. high, cross-pieces 20 in. long.

For Phenomenal and Longanberries, the stakes should be 2½ ft. high, cross-pieces 24 in. long.

For Mammoth Blackberries, the stakes should be 4 ft. high, cross-pieces, 36 in. long.

For Black Cap Raspberries, the stakes should be 4 ft. high, cross-pieces 20 in.

For Himalaya Blackberries, the stakes should be 5 ft. high, cross-pieces 36 in.

All berry plants here listed are ready for delivery from January 1st until April 15th, except strawberries, which are ready for market from November 1st until April 1st.

When ordering berry plants along with seeds, do not expect to receive them together. We do not wish to ship plants the latter part of the week, because they may be delayed during Sunday; therefore all plants are shipped early in the week.

F. O. B. means we deliver to the carrier; you pay express charges.

We aim to have only strong, healthy plants and true to name. We have received few complaints, all of which have been due to delays in transit.

Every home garden should have a few berry vines in the corners or along the fence. It requires only a few vines to supply the family table with berries. They are but little trouble and not particular as to soil.

Mammoth Blackberry

It is all that its name implies, both as to cane and fruit. A single plant has been known to have as much as 175 feet of bearing cane and will cover the side of an ordinary-sized dwelling. The canes start growth early in the spring and after reaching a height of six or seven feet take the trailing habit and should be trellised. They make a prodigious growth and have luxuriant foliage. The canes can be pruned to suit.

In size of fruit no other blackberry approaches it. Berries are frequently found measuring 2½ inches long. For cooking purposes the fruit fulfills all the desired qualities of other blackberries, and as a fresh fruit is generally preferable, owing to large size, having more pulp, less core, no seeds, and is one of the sweetest of all blackberries. Price (3 for 25c) (75c per dozen prepaid) (\$5.00 per 100 f. o. b. here).



Three plants of Himalaya make forty feet of row. These plants bore ripe fruit from June until October.

In field planting, the vines should be given plenty of room; ten feet apart each way is not too much, as the canes make a prodigious growth if allowed. Strong wire trellises should be provided on which not more than four canes from each plant should be trained.

These canes after reaching the desired length should be cut off, causing the surplus energies of the vine to go into fruit. Prices—(3 for 25c) (75c per dozen prepaid) (\$5.00 per 100 f. o. b. Los Angeles).

Macatawa an ever-bearing blackberry; the berry for shipping. In offering this berry we believe you may now have what has long been wanted in the blackberry line—an All-Season bearer. The Mammoth Blackberry for very early, the Himalaya for late, but the Macatawa for both early, medium and late—just all season.

The originator of this berry says of it: "It begins blooming in the southern and coast states about February 15th; in the eastern states about April 1st. One month later you can begin to pick. It is a continual cropper from spring until the frosts; in fact, it is the only berry, in my 46 years' experience, that is an ever-bearing variety. The fruit is very large and sweet; in fact, it is the sweetest blackberry grown. It is coreless and almost seedless, very solid, jet black when ripe, and can be shipped one thousand miles without bruising. The shape is oblong, very uniform, averaging three and one-half inches around one way, by three and one-fourth inches the other way." (Each 10c) (doz. \$1.00 prepaid) (100 plants \$7.00 f. o. b. Los Angeles).

Gardena Dewberry Dewberries grow wild in many localities. Some varieties have been domesticated and improved. Among these is the Gardena, which wins favor wherever tried. The vine is a low ramblers and should not be trained up over twenty-six inches high for best results. Early in the spring the vines are covered with a mass of blooms, later yielding an immense crop of large, lustrous, blue-black berries, very sweet. (4 for 25c) (doz. 60c prepaid) (100 \$4.00 f. o. b. Los Angeles).

Phenomenal Berry This has been said to be the best berry in the world. In its place it certainly is unique, being the result of a cross between a dewberry and the Cuthbert raspberry, taking the size and shape of the former and the color and flavor of the latter.

The vines are similar to the Loganberry and should receive the same training and cultivation. Berries grow in clusters of from 5 to 10 or more, and for size there is no berry of its kind approaching it. Individual berries often measure 3 to 4 inches in circumference. Bright crimson in color and rather tart in flavor, they are excellent for jams, jellies, etc. (3 for 25c) (75c per dozen prepaid) (\$5.00 per 100 f. o. b. Los Angeles).

Loganberries are very similar to Phenomenal berries in appearance.

This berry is largely used for pies, for canning, and making preserves. It has the appearance of a large raspberry and the blended flavor of raspberry and dewberry. It is so prolific that a single vine will often bear 100 boxes of berries. For a home garden a few vines trellised along a fence will be sufficient, but for commercial planting set the plants five feet apart in rows six feet apart. (3 for 25c) (1 doz. 75c prepaid) (100 \$5.00 f. o. b. Los Angeles).

St. Regis Everbearing Raspberries for four months—that's what you get when you plant St. Regis—the new everbearing variety.

This variety has been aptly termed "the early till late" variety; for it is the first red raspberry to give ripe fruit, while it continues to produce berries without intermission until late in October.

Unlike any other raspberry, the St. Regis yields a crop of fruit the first season; planted in early April, ripens berries early in June of the same year. For four weeks thereafter the yield is heavy, and the canes continue to produce a ripe fruit freely without intermission until the middle of October. (3 for 25c) (75c per dozen) (100 plants \$5.00 f. o. b. here).

Himalaya Blackberry

Mr. J. E. Hathaway says: "It is wonderfully productive, and if kept well pruned, the berries are large and delicious. I have the Mammoth and other varieties, but for all table purposes I prefer Himalaya."

Mr. C. E. Trapp says: "As a money-maker, it beats them all."

This is enormously productive, bearing from June until frost.

BERRIES (Continued)

Cuthbert Raspberry Nearly everyone knows about this excellent berry. Where favored with moist ocean breezes the large red fruit is unsurpassed. (3 for 25c) (doz. 75c prepaid) (100 \$4.00 f. o. b. here).

Surprise Raspberry This berry is very similar in appearance to the Superlative. It is the earliest red raspberry on the market and has a long fruiting season. The roots produce an abundance of bushy canes, immense clusters of berries on every lateral. The Surprise is practically an ever-bearer in warm climates and raspberries at Christmas time yield a handsome profit. This variety is especially recommended for warm and hot locations where other varieties are subjected to sunburn. (3 for 25c) (doz. \$1.00 postpaid) (100 \$6.00 f. o. b. here).

King of the Cliffs Everbearing Mr. B. L. Reynolds says: "You made no mistake bringing the King of the Cliff to California. It has them all beat, and it is a wonderful berry." This is a Black Cap Raspberry bearing fruit from April until Dec. (2 for 25c) (doz. \$1.25) postpaid; (100, \$7.00) f. o. b. here.

Himalayan Yellow Raspberry An importation from India that is proving very attractive. It is a wonderfully vigorous raspberry growing canes fifteen and twenty feet long. Plants 18 in. high each 75c postpaid.

Strawberries

For Early Berries Read This

The present method of setting plants a few inches apart on little narrow ridges too close to permit of irrigating without uncovering the roots is not conducive to best results.

Set the plants in December, January or February two feet apart in rows two feet apart; keep the soil in perfect condition to permit of the runners to root freely but train them to grow along the row. Then do not disturb them except to cultivate and fertilize. By January or February of the following year you will have a field in full bearing, and the vines will continue bearing until late in the season. Continue the cultivation, allowing the runners to set as before. The profit in earliness and productiveness the second season is conclusive that this method is better than is now generally pursued.

Northern Grown Varieties

Ettersburg No. 80 Mr. Etter says of it: "No. 80 is a large solid berry, it is very productive of fine red berries that are of large size and have a large, clean-cut green calyx or hull. The blossoms are very large and the runners very strong. The plant is extra vigorous and deep rooting and the foliage leathery. In the fall of the year the young foliage is of a bluish cast. The fresh fruit is of fine dessert quality, and for flavor as a canned berry it is the very best, a deliciousness I have found in no other variety. It is red, and red to the center. It is a great canning sort. I regard No. 80 as about the best of all my hybrid strawberries for trial everywhere."

Ettersburg No. 111 Is noted for continuous bearing.

Ettersburg No. 121 Is quite distinct from the others for its firmness and ruggedness, existing on dry hard soils. Indeed if given too much moisture and richness of soil, it will go too much to vine, and cause inferior fruit.

One price for all Ettersburg varieties. (Per dozen 50c) (25 for 75c) (100 for \$2.00) postpaid, (1000 for \$12.00) f. o. b. here.

We have many testimonials praising the Ettersburg berries. If interested, we will give references.

Banner A comparatively new variety, of remarkable excellence because of its uniformly large size red, glossy appearance, good keeping qualities, non-acid flavor, and it is always showy. (25 plants 50c) (100 plants \$1.25) postpaid, (1000 for \$7.00) f. o. b. here.

New Oregon A great favorite in the northern part of the state, and it is popular because of its excellence as a shipper, and it is enormously prolific of large, red berries. (25 plants 50c) (100 plants \$1.25) postpaid, (1000 plants \$7.00) f. o. b. here.

Local Grown Plants

Klondike, Brandywine. (50 plants 50c) (100 plants 75c) postpaid, (1000 plants \$3.50) f. o. b. here.

If interested, send for illustrated strawberry catalog.

Eastern Grown Plants

It is now well known that Eastern plants are better than those local grown, and that the stock should be renewed every second year, so here is your chance to get a good start.

We have arranged with one of the most reliable growers in the far East to supply us with the following varieties that have proven popular in California:

Klondike, Brandywine, Nick Ohmer, Aroma, Lady Cornelle,—all at \$6.00 per thousand f. o. b. here.

Superba, the best everbearing variety. (25 plants 75c) (100 plants \$2.00) postpaid; (1000 plants \$10.00) f. o. b. here.

We will deliver in two weeks from time order is received.

The Lue Gim Gong Orange

Read about this wonderful Orange now so popular in Florida Introduced by us last year. If interested write for further information.

Wilder Medal The most noted horticultural organization in the country today, as it has been for the past sixty years, is the American Pomological Society. This Society, recognizing the merits of the Lue Gim Gong Orange, awarded a Wilder Silver Medal to this variety. We believe this is the first time a Wilder Medal has been awarded for a new variety of Orange since the society was organized, and gives a fair idea of the estimation in which this fruit is held by experts.

Description.—Size large; form oblong, carrying the size well out to the rounded ends; color deep orange-red; skin thin, smooth on current crop, becoming rougher on two and three year old fruit; sections well defined, ten or eleven in number; flesh deep orange; juice sacks large; juice abundant, even in old specimens; flavor a rich blending of sweet and subacid; quality best. A fine shipping fruit and a good keeper. Very hardy and resistant to cold.

An extract from a personal letter from Mr. W. S. Hart, Hawks Park, Fla., sets forth his opinion of the Lue Gim Gong Orange. Mr. Hart has for years stood for all that is best in citrus-fruit growing in Florida, and no man is more competent to pass on the merits of a new variety. He says:

"During the past two seasons, I have had some opportunity to study the peculiar merits of the Lue Gim Gong Orange, and I can honestly say that I have become convinced that it is the most promising money-producing proposition for the citrus-grower now in sight."

We offer two year old budded trees \$2.50 each f. o. b. here. Write for quantity price.

FRUIT TREES

All prices f. o. b. Los Angeles, Cal. Write for quantity prices on all trees.

CITRUS FRUIT TREES

On sale at our branch store, 115 N. Main Street



Washington Navel Orange

Orange-Washington Navel

A beautiful tree bearing abundantly each season of large delicious fruit that is absolutely seedless, ripens early, bearing from November until May. Price \$1.25 each. Write for quantity price.

Orange Late Valencia

—A prolific bearer of excellent fruit that matures from June until November. With one tree of Navel and one of Valencia in your

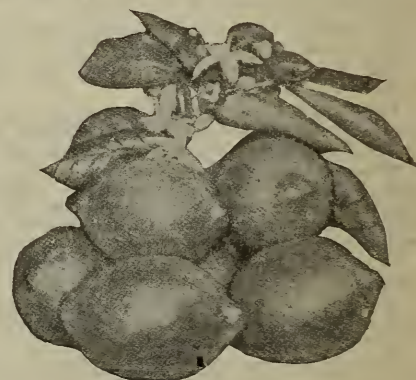
garden you will have oranges the year round. Price \$1.25 each. Write for quantity price.

Orange Tangerine

Ripens from November until May. The Tangerine is a delightful fruit, sweet and delicious. The rind is easily separated from the fruit. Price \$2.50 each.

Orange Kumquat

The tree is small but ornamental; fruit olive-shaped, orange yellow and exceedingly aromatic; is candied by the confectioner and is in much demand. Ripens May to July. Price \$2.50 each.



Eureka Lemon

Lemon-Eureka The favorite variety in California. Because of its good keeping qualities it is the favorite with the shipper, and because it is a prolific bearer throughout the year, of medium-sized, well-shaped, nearly seedless fruit, it is the favorite with the grower. Price \$1.25 each.

Pomelo or Grape Fruit, Marsh's Seedless—The best of all Pomelos; sweet and seedless, with thin rind, an early and continuous bearer. Price \$1.50 each.

Mexican Lime Budded from the genuine Mexican Lime. Price \$1.50 each.

Deciduous Fruit Trees Mail us a list of your wants. We will quote you prices and should we be favored with your order, we are sure the trees will prove entirely satisfactory to you.

Insecticides and Pest Exterminators

Notice—Poisonous insecticides may not be sent by mail. Many insecticides are not dangerously poisonous. Many are in liquid form put up in tins or glass. To send these by mail, extraordinary care must be given to the packing, which necessarily adds much to the weight, and therefore the postage may seem out of proportion to the purchase price. On bulky items where the postpaid price is not mentioned, we prefer to send by express, and shall do so unless requested to do otherwise.

If wanted by parcel post, add sufficient money to the given price to cover postage. Estimate liquids plus package at the rate of 4 pounds to the quart, or 14 pounds to the gallon. See parcel post rate on inside of front cover page.

Prices on some items fluctuate and are subject to market changes.

Ant Exterminator, Talbot's Powder

Valuable to apply in the house for roaches, as well as in the garden for ants. Put up in paper shakers. (3 oz. 25c) (6 oz. 50c) (12 ozs. \$1.00). Add 10c each size for packing and postage.

Arsenate of Lead (Paste) A poison to destroy insects that eat the foliage. It is often applied mixed with Bordeaux. Dilute three pounds of Arsenate of Lead to fifty gallons of water. Put up in tin cans. (1 lb. 50c) (5 lbs. \$1.75). Cannot mail.

Arsenate of Lead (Powder). Used the same as paste. (½ lb. 25c) (1 lb. 50c). Cannot mail.

"Black Leaf 40" (Sulphate of Nicotine). The best insecticide to eradicate plant lice of every description wherever they may appear, or it may be used as wash for animals affected with skin diseases. There is no better spray for chicken houses. Diluted according to directions it is non-poisonous and may be safely applied to all vegetables. Dilute two teaspoonfuls to one gallon of water. Add a little soap to insure adhesion to the foliage. In tin. (1 oz. 25c) (½ lb. 75c) (2 lbs. \$2.50). Add postage.

Blue Stone (Sulphate of Copper). Applied in time it will prevent mildew and all fungus diseases. Dissolve one pound with hot water in a wooden or earthen vessel. Then dilute with cold water to six gallons. Sold in bulk. (1 lb. 25c) (5 lbs. \$1.00). Price fluctuates. Ask for quantity price. Cannot mail.

Bordeaux Mixture (Paste). The great preventive of mildew, blight, fungus, root disease and rust, particularly on potatoes, celery, tomatoes, or wherever they may appear. One quart should be dissolved in a wooden or earthen vessel with hot water, diluted to twelve gallons of water. In tin (1 qt. 75c).

Formula for fifty gallons of Bordeaux Mixture.—Slack with water five pounds lump lime, then dilute to twenty-five gallons. Dissolve 5 pounds Blue Stone in a wooden or earthen vessel with hot water; dilute to twenty-five gallons. Mix equal parts when wanted.

Bordeaux Mixture (Powder). (1 lb. 35c) (5 lbs. \$1.50). Add postage.

Bug Death (Powder). Poison for slugs on roses, or for any insects that eat foliage wherever they may be found. Sold in bulk.

Creolium (Liquid). For aphids, thrip, red spider, mites in chicken houses, and skin diseases on animals. Directions.—For tender plants dilute to 99 parts water. Add a little soap. Sold in tin. (½ pt. 35c) (1 qt. \$1.00). Add postage.

Carbon Bi-Sulphide (Liquid). For exterminating gophers, squirrels, ants or any vermin that live under ground. Directions: Saturate cotton or other absorbent, put deep into the hole and close all openings. For ants, pour into the opening. For weevil in grain, put grain into any air-tight chamber; for one hundred cubic feet of space use ½ pint of Carbon Bi-sulphide; saturate it into any absorbent so that it will evaporate quickly; close the chamber tightly for three or four hours. It is not necessary to remove the grain from the sacks.

Notice!!! Danger!!! It is very combustible. More dangerous than gasoline. Therefore do not smoke or have fire anywhere near while handling Carbon Bi-sulphide. (1 qt. 50c) (1 gal. \$1.50) (5 gals. \$6.00). Cannot mail.

Formaldehyde (Liquid).—For destroying the germs of smut on grain, of scab and rhizoctonia on potatoes, dilute one pint to forty gallons of water. Submerge potatoes one and one-half hours, and grain only long enough to moisten it. (Pint 50c) (qt. \$1.00). Cannot mail.

S. P. Gopher Balls Applied same as Gopher Candles, put up in paper boxes of one dozen. (Per box 50c postpaid).

Gopher Candles Similar to fire-crackers, and safe to handle. Put in gopher or squirrel runs, light the fuse, and close all openings. The fumes will kill the vermin. (Per bundle of twelve, 50c). Add 10c for packing and postage.

Gopher-Go (Poison Grain).—Very popular because it is easy to apply and does the work. Drop some grain in the gopher run early in the morning when the hole is open. Do not disturb the opening. In a few minutes it will be eaten. If the hole is not closed within ½ hour, he is dead; if the hole is closed, try again next morning. Sold in paper packages. (10 oz. 30c) (22 oz. 50c) (3½ lbs. \$1.60) (10½ lb. \$3.00).

Hellebore (Poison Powder).—For all insects that eat the foliage. Put up in paper. (½ lb. 25c). Cannot mail.

Kill-Scale Emulsion (Liquid).—For scale and lice, for any sucking insects on plants or in chicken houses. (1 gal. 60c). Cannot mail.

Kill-Scale Soap Use same as for Kill-Scale Emulsion. (2-lb. piece 25c). Add 10c for packing and postage.

Lime Sulphur Spray One gallon of paste is sufficient to make 15 gallons of spray. (½ gal. tin can 50c) (1 gal. 85c) (5 gal. \$3.50).

Lime Hydrated (Powder).—A disinfectant. All insects will avoid it. It is good for the soil in plant beds and good for the plants. Put in box about the chicken house, that the fowls may dust in it. (10 lbs. 25c) (50 lbs. \$1.00). Cannot mail.

Lime (Lump).—For white-washing and for making Bordeaux. Sold by the drum, about one barrel, \$2.00 each, f. o. b. here.

Nico Fume (Liquid).—For aphids in hot-houses. Similar to but is more volatile than "Black Leaf 40," which should be used on out-door plants, while Nico-Fume should be used in greenhouses and hot-beds. Either spray or fumigate by vaporization, by inserting red-hot iron into the liquid. Sold in tins. (¼ lb. 50c) (4 lbs. \$5.50) postpaid; (8 lbs. \$10.50). Add postage.

Nico Fume (Paper).—Sold in tins of 24 sheets. One sheet is sufficient to fumigate 100 cubic feet. It is an easy way to rid greenhouses and hot-beds of aphids, and chicken houses of lice and mites. Directions printed on each package. (Per package \$1.00) postpaid.

Nikoteen (Liquid).—30 per cent strength for spraying, strongest, purest and most economical. Death to Aphids or Green Fly, Red Spider, Mealy Bug, Thrip and many other forms of Flower, Fruit and Vegetable Lice. An extract of tobacco, containing about 30 per cent nicotine. A most effectual, economical and safe remedy for fumigating greenhouses. Use a scant teaspoonful to 1½ pints of water for each pan, which is sufficient, when vaporized by placing a hot iron in it, for 600 square feet of floor space. (Pint bottle. \$1.50; prepaid, \$1.75).

Paris Green (Powder).—Sure death to all insects that eat foliage. Mix with Bordeaux when desired. To four gallons water add one tablespoonful and keep well agitated. For cut-worms, mix one tablespoonful to ten pounds bran and spread around the base of plants. Put up in paper. (¼ lb. 20c) (½ lb. 35c) (1 lb. \$65c). Cannot mail.

Resin Wash (Liquid).—For all kinds of scale and fungus. (1 qt. 30c) (gal. 50c) (5 gal. \$2.00). Cannot mail.

Slug-Shot, Hammond's (Powder).—For bugs and worms that eat foliage. (1 lb. 20c) (5 lbs. 65c). Cannot mail.

Squirrel Poison, Moore's Lb. 25c. Cannot mail.

Squirrel Poison, Finley's (Grain).—For gophers and squirrels. Sold in tin. (1 qt. about 2 lbs. 35c). Cannot mail. (5 gallons weighing about 42 lbs. \$4.00) f. o. b. here.

Sulphur (Powder).—The Anchor Brand is the best. (Per lb. 10c) (50 lbs. \$2.25) (1 sack weighing 110 lbs. \$4.40) f. o. b. here. Cannot mail.



STERLINGWORTH CUT WORM KILLER

It is a non-poisonous powder, (except in large quantity), so alluring that cut worms are attracted to it. Birds and fowls that eat the dead cut worms are not killed. One pound protects 175 plants in hills, and 150 lineal feet when in rows. Read carefully the directions. (1 lb. box 25c) (5 lb. tins \$1.00) (25 lb. drums \$4.00). Cannot mail.

See Sterlingworth Poultry Remedies Page—

Sulpho-Tobacco Soap Used as a spray for aphids, thrip, mites, and as a wash for skin diseases on animals. (Small size 10c) (Large size 25c). Add 5c each for postage and packing.

Tobacco Dust (Powder).—For aphids and small insects in plant beds and poultry houses. (1 lb. 15c) (10 lbs. \$1.25). Cannot mail.

Tobacco Stems For fumigating greenhouses. (1 lb. 15c) (10 lbs. 60c). Adds 5c per pound for packing and postage. (Bale, about 100 lbs., at \$3.75 per hundred pounds) f. o. b. here.

Tanglefoot (Paste).—Apply to trees to protect from ants and rabbits. Put up in tin. (1 lb. 30c) (3 lbs. 85c) (10 lbs. \$2.65) (20 lbs. \$4.80). Add postage.

Whale Oil Soap For scale and fungus. Sold in paper. (¼ lb. 10c) (½ lb. 15c) (1 lb. 25c). Add 10c per packet for packing and postage. (50-lb. case \$5.00).

Rat-Mum—Is sure death to rats. Prepared in cakes, of which the rats are very fond, and eat it readily, but cats and dogs will not eat it. Per cake 25c, prepaid.

Nursery Requisites

On this page we can only hint at some of the lines we carry, trusting you will, if interested, write and inquire for more information. We carry a full line of Lawn Mowers, Garden Hoes, Pruning Knives, etc. Look to the index to find what you want.

GARDEN TOOLS--See Pictures

- No. 1. Water's Tree Pruner, 4 to 10 ft., 75c to \$1.25.
 No. 2. Pond's Handy Garden Tool, 35c, by mail, 45c.
 No. 3. Excelsior Weeder, 10c, by mail, 15c.
 No. 4. Tree Pruner, all sorts, from 75c to \$3.00.
 No. 5. Garden Trowels, all sorts, from 10c to 50c.
 No. 6. Grass Hooks, or Sickles, 40c, 50c, 60c.
 No. 7. Dibble, 50c, by mail, 60c.
 No. 9. Pruning Saws, double and single edge, \$1.00.
 No. 9. Havil's Weeder, 40c, by mail, 50c.
 No. 10. Hedge Pruners, \$1.25 to \$2.25 each.
 No. 11. Pruning Shears, from 35c to \$2.50 each.
 No. 12. Scuffle Hoe, 8-in., 75c, 12-in., \$1.00.
 No. 13. Ohio Wire Rake, 75c.
 No. 14. Hoe and Rake combined, 75c.
 No. 15. All Steel Rake, 80c to \$1.00 each.
 No. 16. Warren Hoe, 85c.
 No. 17. Turf Edger, 80c.
 No. 18. Steel Spade, \$1.00.
 No. 19. Spading Forks, \$1.00 to \$1.25.
 No. 20. Potato Hooks, \$1.00 to \$1.50.
 No. 21. Garden Hoes, from 4 to 10 in., 50c to \$1.00.
 No. 22. Steel Shovels, \$1.00 to \$1.50 each.
 No. 23. Manure Fork, 90c, Hay Fork, \$1.40.
 Balling Spades.—\$1.75.
 Ladies' Garden Sets—Made of best material. (Per set \$1.50).
 Bishop's Folding, Adjustable Handle Weeder, \$1.00.

LAWN MOWERS

We carry a complete line of Lawn Mowers, and aim always to have the best. The following is a list of what we have, with prices attached:

No. 1—Capitol Lawn Trimmer and Edger—Does what Lawn Mowers leave undone. Having one side without wheel, it can be run close to walls and trees, cutting grass clean and quick. Can also be used for trimming edges of walks, etc.; 4 steel blades, 6 in. wide. Price, \$6.50 complete.

F. & N. SIGNET PLAIN BEARING

	Wt.	Price
Open type, 8-in. drive wheels, four knives.		
12-in.	31 lbs.	\$3.90
14-in.	33 lbs.	4.10
16-in.	37 lbs.	4.35

LAWN QUEEN BALL BEARING

Full open type drive wheels, 9 in. diam., reel 5½ in. diam., four knives.

	Wt.	Price
12-in.	28 lbs.	\$6.25
14-in.	30 lbs.	6.60
16-in.	34 lbs.	7.00

LAWN KING BALL BEARING

Open type wheels, 10½ in. diam., reel 6 in. diam., four knives.

	Wt.	Price
14-in.	48 lbs.	\$8.50
16-in.	53 lbs.	9.00
18-in.	58 lbs.	9.50

GARDEN HOSE

Owing to the general dissatisfaction of selling cheap and inferior hose, we have discarded all brands except those that have sold for a number of years and have proven satisfactory.

No. 4—A. & M. Moulded Hose is equal in quality to the highest priced grades of any other make. None is superior. (¾ in. 18c per ft.) (½ in. 16c per ft.).

Hose Washers, per doz. 15c postpaid.

No. 5—The Cooper Brass Hose Mender—15c each, prepaid.

No. 6—Brass Hose Couplings—½ in. or ¾ in. Per pair, 35c, prepaid.

No. 7—The Rose Nozzle,—60c, prepaid.

No. 8—Boston Nozzle—50c, prepaid.

No. 9—Wood Hose Menders, ½ in. or ¾ in., 15c per dozen, prepaid.

No. 10—Twin Sprinkler—35c, prepaid.

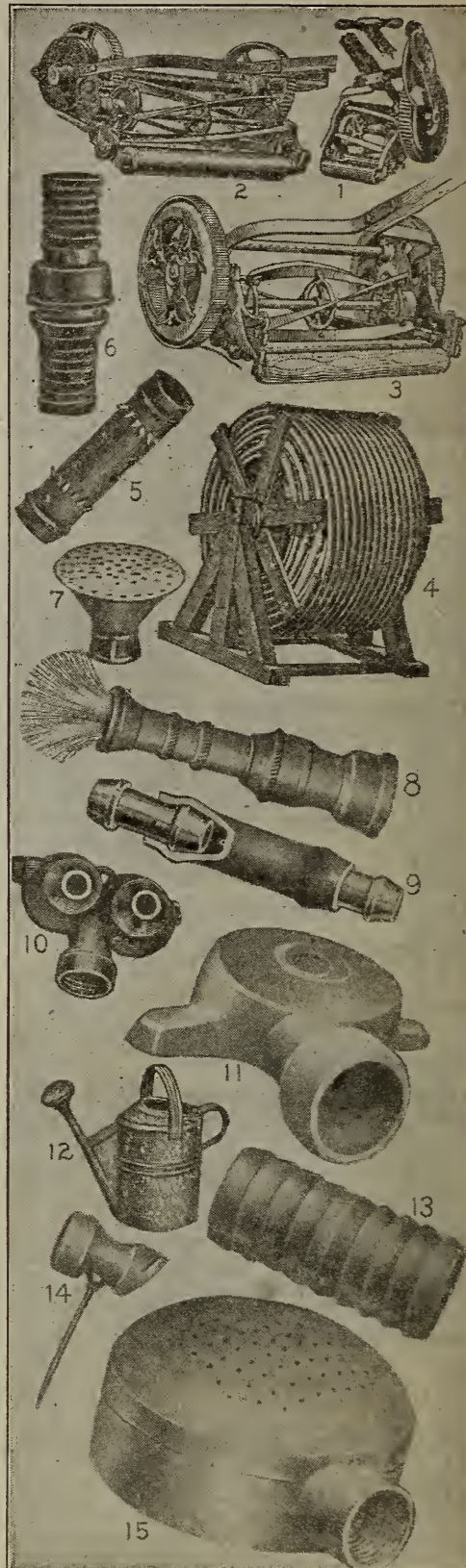
No. 11—Wilgus Sprinkler—40c, prepaid.

No. 12—Sprinkling Can—(6 qts. 50c) (8 qts. 60c) (10 qts. 70c) (12 qts. 80c) f. o. b. here.

No. 13—Brass Hose Menders—10c, prepaid.

No. 14—Fan Sprinkler—35c, prepaid.

No. 15—The Fountain Sprinkler—\$1.00, prepaid.



All kinds of Hose Clamps, 5c per pair.

Hose Nozzles, a large assortment.

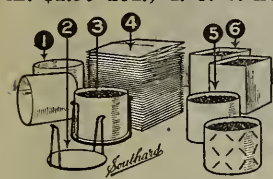
We have sprinklers of every description. If you will describe what you want, we will send it to you.

Grafting Wax—(¼ lb. 20c) (½ lb. 30c) (1 lb. 40c) postpaid.
 Hanging Baskets (Clay)—(7 in. 20c each) (8 in. 25c) (10 in. 75c) (14 in. \$1.50) f. o. b. here.
 Wire Hanging Baskets—(10 in. 35c) (12 in. 45c).
 Wire Wall Pockets—(10 in. 45c) (12 in. 55c).
 Green Moss—(1 lb. 10c) f. o. b. here; (bales, 80 lbs., 7c lb.).
 Spagnum Moss—(Per bale \$2.00).
 Budding Twine—(Per ball 35c). Postpaid 45c.
 Budding Cloth—(Per square yard 50c, prepaid).
 Raffia—(Per lb. 30c) (10 lbs. \$2.50) f. o. b. here.
 Balling Twine—(5-lb. ball \$1.25).
 Plant Stakes—Square, painted green:
 2 feet.....35c per dozen 3 feet.....50c per dozen
 4 feet.....75c per dozen

POT LABELS			
Plain	1000	Painted	
4.....	15c	4.....	12c
5.....	20c	5.....	25c
6.....	25c	6.....	30c
8.....	50c	8.....	60c
Tree Labels—Copper wired and painted:			
3½ inch.....	35c per 100		\$1.65 per 1000

CLAY FLOWER POTS

Flower Pots—(2 in. 20c doz.) (3 in. 35c doz.) (4 in. 50c doz.) (5 in. 60c doz.) (6 in. \$1.00 doz.) (7 in. \$1.25 doz.) (8 in. \$1.50 doz.) f. o. b. here.



SOUTHARD'S IMPROVED PLANTING POTS

For the use of nurserymen and truck gardeners.

Manufactured from select material. Southard's Pots are recessed and porous, which provides for aeration, drainage and easy outlet for root system, when pot is placed in the ground.

Southard's Planting Pots are shipped flat (see Fig 4) and may be used round or square (see Figures 5 and 6, filled with soil). Figures 2 and 3 show Southard's Potting Tool in its use. (Price of Potting Tools 20c each, postpaid.)

For Vegetables and Flowers

Per 100			Per 1000		
Inches	Wt.	Price	Wt.	Price	
1¼ x 3.....	1 lb.	.50	10 lbs.	\$1.75	
2 x 3.....	1 lb.	.60	11 lbs.	2.00	
2½ x 3.....	2 lbs.	.70	12 lbs.	2.25	

For Trees and Shrubbery

Per 100			Per 1000		
Inches	Wt.	Price	Wt.	Price	
1¼ x 3.....	1 lb.	.50	11 lbs.	\$1.85	
2 x 3.....	1 lb.	.60	12 lbs.	2.10	
2 x 4.....	2 lbs.	.70	14 lbs.	2.35	
3 x 4.....	2 lbs.	.80	16 lbs.	2.75	
3 x 5.....	3 lbs.	.90	18 lbs.	3.25	

Jumbo Pots for Heavy Planting Stock

Per 100			Per 1000		
Inches	Wt.	Price	Wt.	Price	
4 x 6.....	3 lbs.	.90	50 lbs.	\$7.00	
6 x 8.....	6 lbs.	2.00	75 lbs.	15.50	

Bottoms are necessary in these heavier pots. Block for forming bottoms 4 x 6 inches, 50c; 6 x 8, 75c each, f. o. b. here.

All prices f. o. b. Los Angeles.

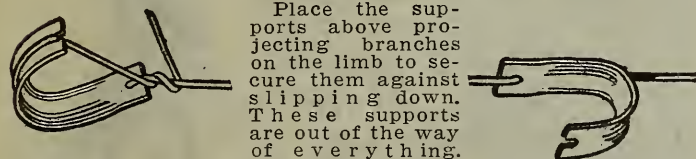
SEWING TWINE

No. 1—Per lb., 60c; Bdl. 12 lbs., \$6.50.

No. 2—Per lb., 50c; Bdl. 12 lbs., \$5.50.

Sack Needle—Plain, 5c each; Spring Eye, 25c.

THOMPSON'S TREE SUPPORT



Place the supports above projecting branches on the limb to secure them against slipping down. These supports are out of the way of everything. They are perpetual. There is no

further expense after putting on. The proposition is simply to make opposite limbs support each other, or the center limbs to support the outer limbs, thus doing away entirely with the ordinary wooden prop. (Per 100, \$1.75) (1000 \$18.50) Weight 10 to a lb.

TRANSPLANTER

A Transplanter that does the work without disturbing the roots. It first makes the hole where you wish the plant,

then picks up the plant, root and all, without disturbing it, and sets the plant into its new location without checking its growth. A child can operate it. Just the thing for Eucalyptus growers and nurserymen. (50c) (by mail 60c).

Berry Hook—Just the tool to trim blackberry, raspberry, dewberry and loganberry vines. No scratched hands. You cannot do the work well without this tool. Price \$1.00.

Pennsylvania Fruit Picker



Pennsylvania Fruit Picker

No ranch is completely equipped without this valuable tool. It is always the choicest fruit that cannot be reached from the ladder; you do not wish to knock it down with a club, as the fall would bruise it. Use the Fruit Picker and the fruit is caught in the pocket prepared for it. Every ranch that has half a dozen or more fruit or walnut trees should have one or more Pennsylvania Fruit Pickers. Price—(50c, by mail 65c).

Raffia for Tying Asparagus

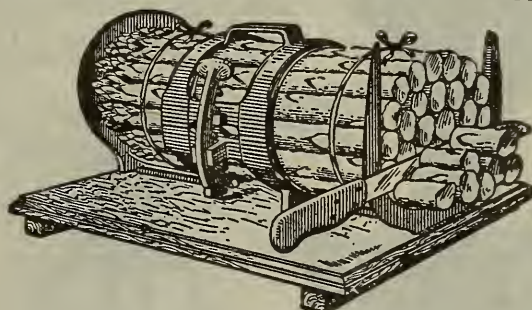
While we offer tape for this purpose, we recommend the use of raffia as being more sanitary, cheaper and better than tape. The large growers along the Sacramento River use raffia exclusively. One pound is equal to 700 yards of tape. Price—(1 lb. 30c) (10 lbs. \$2.50). Postage extra. For large quantities write for price.

ASPARAGUS TAPE

Write for price and description.

Asparagus Knife.—Price 50c, by mail 65c.

Asparagus Moss.—We always have on hand a large supply of moss for asparagus shippers. Price on application.



Philadelphia Asparagus Buncher

We carry the Philadelphia make, which is the popular one with all large shippers. No. 1 size will shape bunches 3-3½ inches in diameter, weighing about one pound. No. 2 will shape bunches 4-5 inches in diameter, weighing about two pounds. Price—(No. 1, \$2.50) (No. 2, \$2.75) f. o. b. here. Mail wt. 10 lbs.

GAVIOTA--The Magic Fertilizer

Concentrated and Odorless

For potted house-plants, out-door plants, flowers, trees or lawns.

Best of all fertilizers for the vegetable garden and for berries.

Because of its concentrated composition it is the most economical fertilizer to use.

Put up in tin cans, with directions attached, all convenient for use without any unpleasant feature.

Small size tins (2 lbs. net) 25c f. o. b. here; 35c postpaid within third zone.

Large size tins (5 lbs. net) 50c f. o. b. here; 65c postpaid within third zone.

100 lbs., \$6.00 f. o. b. here.

See full line of Fertilizers, page 64.

NOTICE! NOTICE! NOTICE!

We aim to list in this catalog our leaders in every line. Yet we have on hand many items of general use too numerous to mention. Therefore we request that should you desire anything pertaining to agriculture write us about it. If we do not have it, we will be accommodating and get it for you. Consider us your friend and make use of us.

Ranch and Orchard Requisites



Sulphur Duster
½ gal. 60c; by
mail 70c

LITTLE GIANT DUSTER

The best dry powder gun; will distribute any dry insecticides and fungicides. Will do as much work in a day as a horsepower sprayer. Dusts two rows at once. weight, packed, 15 lbs. Price—\$10.00.



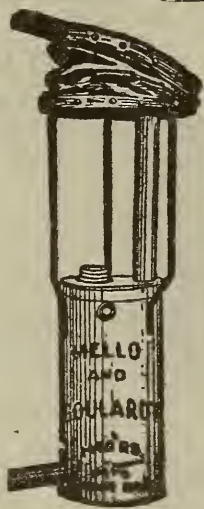
H & T Sulphur Duster

Very similar to the Vermorel, slightly smaller and will serve the purpose quite as well. When in the market for a sulphur duster, give this one your consideration. We believe you will find it to your entire satisfaction. Weight, packed, 12 lbs. Price—\$9.00.

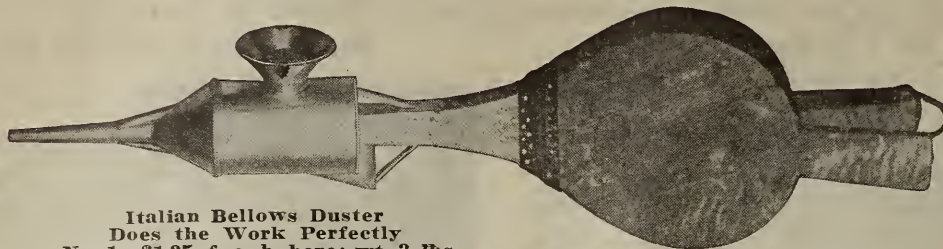


H. & T. Sulphur Duster

EUREKA SQUIRREL EXTERMINATOR—With the use of Carbon Bi-Sulphide this is the best and cheapest implement with which to eradicate the squirrel pests on your land. We can confidently recommend the use of this machine in vineyards, orchards, grain fields, pasture lands, etc. It is of simple construction, best galvanized sheet steel with a bellows attached. The working of the bellows causes the Bi-Sulphide in the machine to generate a gas which is forced through the hole or holes, not forcing in any liquid, but simply a gas from Bi-Sulphide, thus saving 75 per cent of the Carbon Bi-Sulphide bill over the old way of saturating balls of old rags or cotton. A colony of squirrels can soon destroy \$50 worth of vegetation. Six dollars and fifty cents expended for this Exterminator will destroy all the squirrels about your place. \$6.50. Weight, crated, 12 lbs.



Eureka Squirrel Exterminator



Italian Bellows Duster
Does the Work Perfectly
No. 1—\$1.35, f. o. b. here; wt. 3 lbs.
No. 2—\$2.00, f. o. b. here; wt. 4 lbs.
No. 3—\$2.50, f. o. b. here; wt. 5 lbs.



Powder Blower
Price 25c; mail 30c
For house plants use this blower.



Yucca

SOUTHARD'S RE-INFORCED TREE PROTECTORS

Re-inforced at both ends and with wire encircling the wrapper.

Protect your trees from sunburn, hot winds, frost and animal pests. Hot sun exposure hardens the bark, contracts the sap channels and retards tree growth. Southard's Tree Protectors eliminate these injuries.

They can be removed without injury and may be used again.

YUCCA TREE PROTECTORS

Just the thing with which to protect the young trees and shrubs from the rays of the hot summer sun, from rabbits and other injury, being cheap and serviceable.



Southard

Standard Grade

Prices of Southard's Tree Protectors

Per 100			Per 1000		
Inches	Wt.	Price	Wt.	Price	
9	6 lbs.	\$.90	55 lbs.	\$6.40	
12	7 lbs.	1.10	65 lbs.	8.40	
14	9 lbs.	1.25	77 lbs.	9.75	
18	12 lbs.	1.40	100 lbs.	10.45	
24	16 lbs.	1.75	135 lbs.	12.50	
30	21 lbs.	2.15	175 lbs.	15.70	

All prices f. o. b. Los Angeles

Prices of Yucca Tree Protectors

Per 100			Per 1000		
Inches	Wt.	Price	Wt.	Price	
30 in.	25 lbs.	\$2.50	250 lbs.	\$21.00	
24 in.	18 lbs.	2.25	180 lbs.	18.00	
18 in.	12 lbs.	2.00	120 lbs.	15.00	
16 in.	11 lbs.	1.75	110 lbs.	13.50	
14 in.	9 lbs.	1.60	90 lbs.	12.00	
12 in.	8 lbs.	1.50	80 lbs.	11.00	
10 in.	7 lbs.	1.25	70 lbs.	10.00	

All prices f. o. b. Los Angeles

Out-O-Sight Mole Trap

Mole Trap—It is the best that has been patented. If properly placed over the runway it is sure to catch the mole, no matter which direction he travels. Louie Dick, a Chinaman, reported five moles the first week he had it. He says it has never failed to catch. 75c, by mail, \$1.00.

A. & M. Superior Gopher Trap—This is the most convenient gopher trap yet put on the market. It is easy to set, and being small, it can be extended far down into the hole. 25c postpaid.

Sure Pop Box Trap—You never fail to get your gopher when two traps are set in the opposite directions in the main run. 20c, by mail, 30c.



A. & M. Superior

Easy Set Mole Trap catches them going and coming. A child can set it with perfect safety. 75c; prepaid, \$1.00.

Steel Jaw Traps, all sizes, 20c to \$1.00. When ordering state what game you wish to catch.

MACABEE Gopher Trap, 25c postpaid.

CONSULT THE INDEX

There is more in this book than you are looking for; or, you may want information that you cannot readily find. Consult the Index.

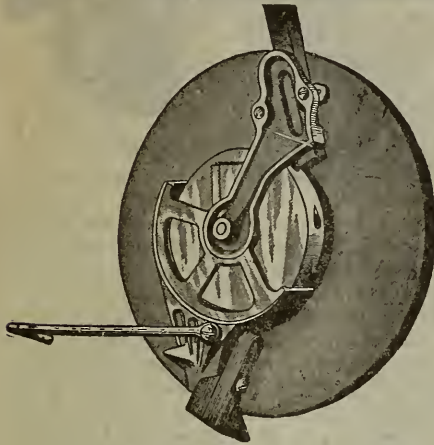


Easy-Set Mole Trap

Farm Requisites and Garden Tools

When wanted by Mail, add postage. See inside front cover page.

We have enumerated only a few of the specialties we carry. We have always on hand a full line of garden tools of every description, and for every conceivable purpose. Ask for anything you may want in this line. We have it.



Eureka Seed Drill

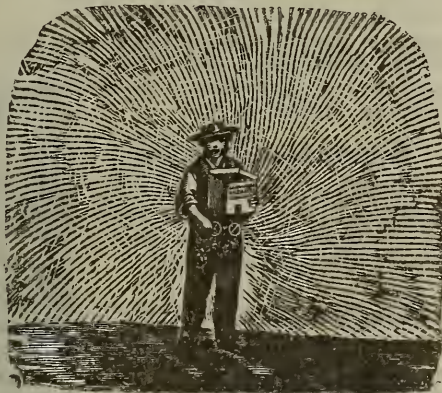
Eureka Seed Drill

A garden Drill that will distribute beet, cabbage, celery, carrot, lettuce, radish, turnip and all similar seeds with perfect regularity. It is utterly impossible for it to sow any way but accurately, doing the work as thoroughly as the most costly machines, and will cover ten times the ground that can possibly be covered by hand. It is simple in construction, so easily understood that a child can be taught to use it.

Price—(\$1.50) f. o. b. here; postpaid \$1.65).

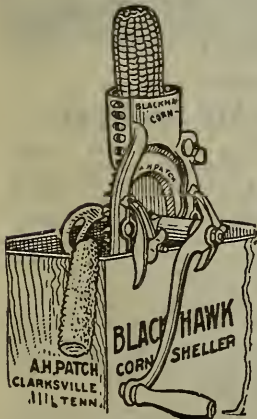
Cahoon Seed Sower

—The Standard Sower, acknowledged to be superior to all other hand sowers. Gives perfect satisfaction and can be used for sowing alfalfa and grains broadcast. Sows from four to eight acres per hour at a common walking gait. A saving of four-fifths of the labor and one-third of the seed by its use. A person entirely unaccustomed to sowing by hand can use this machine with perfect success. Price—\$3.50, f. o. b. here. Weight crated, 8 lbs. Can be sent by mail.



Cahoon Seeder
Weight crated 8 lbs.

Black Hawk Corn Sheller



Corn Sheller

Shells easily, and rapidly separates the cob from the corn. We give it special recommendation to poultry men. Price—\$3.00 f. o. b. here. Weight 20 lbs. packed.

Rittenhouse Seeder

It has its right side concave in shape and rests nicely against the body just above the hip. The crank shaft being above the distributing wheel brings both hands to nearly a level and gives the operator the easiest position possible.



It sows evenly all kinds of grass seeds, grains and fertilizers. Clover is thrown a width of 18 ft.; timothy, 15 ft.; alfalfa, 20 ft.; wheat, 25 ft.; oats, 18 ft.; millet, 18 ft. An operator can sow from 40 to 50 acres per day. Price—\$1.50 f. o. b. here. Weight 9 lbs.

BLACK HAWK FEED MILL

Grinds all kinds of grain fine or coarse. Price \$3.50 f. o. b. here.

Segment Corn and Bean Planter



Master's
Plant Setter

The only hand mechanical plant setter on the market. No stooping when using it, therefore no lame backs. All kinds of plants—Cabbage, Tobacco, Tomatoes, Cauliflower, Strawberries, Sweet Potatoes, etc., are set in water and covered at one operation. Weight 10 lbs.

Price—Each \$5.00 f. o. b. here. Ask for circular.

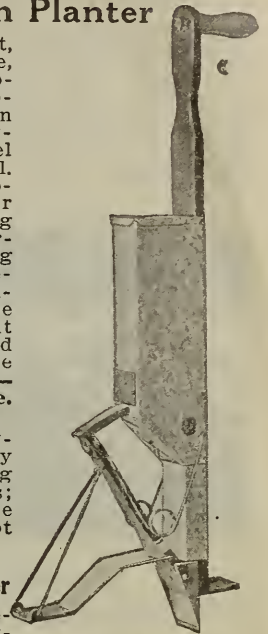
The lightest, most accurate, strongest, cheapest and most up-to-date Planter on the market. Never cracks a kernel nor skips a hill. It is always in position, never makes wrong move. Many gardeners are using this for their replanting, and melon growers are using it to plant watermelons and cantaloupes. (See picture). Price—\$1.50 f. o. b. here. Weight 5 lbs.

Ask for anything you may want pertaining to garden tools; we probably have it, although not listed.

Master Plant Setter

The only hand mechanical plant setter on the market. No stooping when using it, therefore no lame backs. All kinds of plants—Cabbage, Tobacco, Tomatoes, Cauliflower, Strawberries, Sweet Potatoes, etc., are set in water and covered at one operation. Weight 10 lbs.

Price—Each \$5.00 f. o. b. here. Ask for circular.



Segment Corn Planter. All large melon growers are now using the Segment Corn Planter.

"Norcross" Cultivators--Hoes & Weeders

The Modern Tools—for Garden and Flowers



THE MARK OF QUALITY

Like the Human Hand, these tools cultivate closer to plants without injuring them, than any other implement known; leaving the soil level, loose and untrampled.

Cost but a trifle more than the common Hoe—accomplish much more and better work with decidedly less labor. The sharp tapering shovels enter the soil freely, literally tearing up every inch of it, from 1 to 6 inches deep as required.

Detachable Steel Prongs—Malleable Head—Extra High Grade Handles and beautifully finished throughout.

Three sizes, suited to both men and women.



A DISTINCTIVE FEATURE



The "Norcross" 5-prong is the only Cultivator having a Detachable Ferrule (Pat'd) whereby same with handle may be detached and head attached to standard wheel plows if desired, using Norcross Universal Connection supplied extra, at 10c.

PRICES EACH

5-prong (wt. 3 lbs.), \$1.25. 3-prong (wt. 2 lbs.) 90c. Midget (wt. 12 oz.) 50c. Postage extra. See postal rates on inside front cover page.

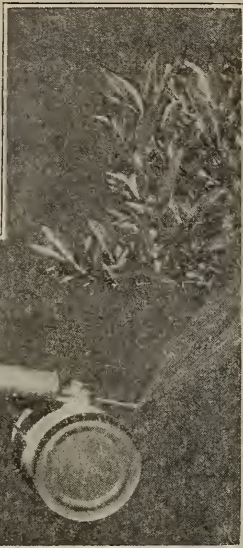
Wheelbarrow Seeders

are a most valuable implement for sowing all grass seeds broadcast. The quantity of seeds sown per acre is accurately governed by the wheel, which moves correspondingly slow or fast as the machine is run over the ground. For all sections where winds prevail, there is no machine made that will equal this implement for an even, accurate job of seeding. The quantity required per acre can be instantly changed by slipping a pin from one hole to another. The Seeders run light, are not complicated, and complete, ready for work, weigh from 40 to 50 pounds. Seeds can be sown mixed or separate, any quantity desired, 30 to 50 acres per day, and give absolute evenness of seeding. Price No. 11 14 ft. wide, \$10.00.

SPRAYERS FOR EVERY PURPOSE

Continuous Sprayer

This atomizer is what the name implies, by means of a small air chamber attached there is sufficient pressure to keep the spray continuous while the operator is making the back stroke of the arm, during which time other atomizers are at rest. Tin 75c, prepaid \$1.00. Brass, \$1.25, prepaid \$1.50.



Continuous Sprayer

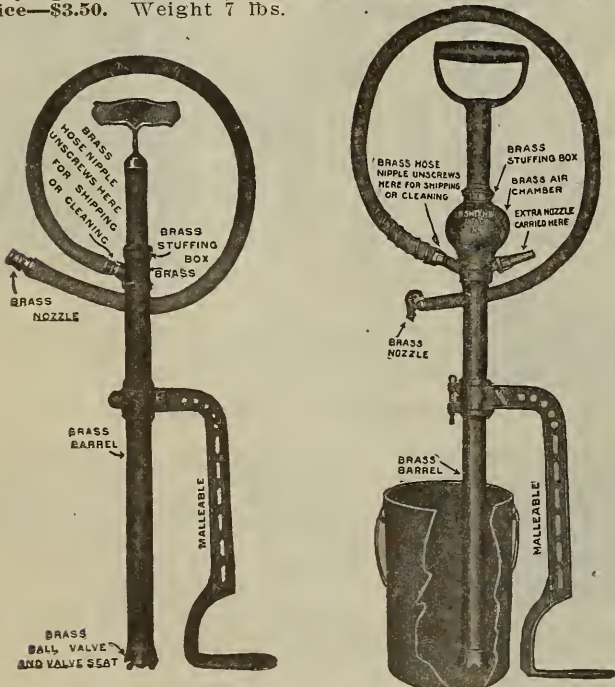
Two nozzles go with this sprayer, one for upward spray and one for straight ahead.

Diamond Bucket Spray Pump No. 32

Diamond Spray Pump—A pump that will spray whitewash or any other mixture. Made of solid brass, no leather valves to wear out or be eaten up by the whitewash. Throws a continuous spray and is so simple that a child can take it apart. The Pump shown on this page is almost entirely of the best grade of brass, hence it cannot be affected by the action of the whitewash or of any ordinary spraying solution. It is fitted with a Bordeaux Nozzle. Altogether it is the most durable and serviceable bucket pump made. Price—\$5.00 each. Weight 10 lbs.

Diamond Bucket Spray Pump No. 29

This pump is provided with large double air chamber, enabling the operator to keep a constant pressure on the nozzle of from 50 to 100 pounds with very little exertion. Rapid pumping is not necessary. Used largely for spraying trees, shrubbery, vegetables, as well as for whitewashing, spraying disinfectants, washing wagons, windows, etc. Price—\$3.50. Weight 7 lbs.



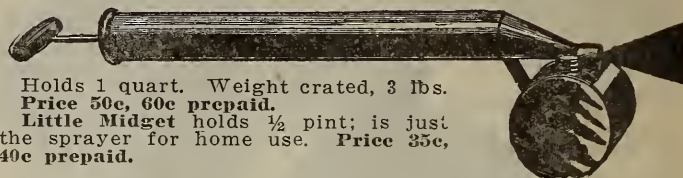
No. 29

No. 32

When wanted by Mail, add postage. See inside front cover page.

We have enumerated only a few of the specialties we carry. We have always on hand a full line of garden tools of every description, and for every conceivable purpose. Ask for anything you may want in this line. We have it.

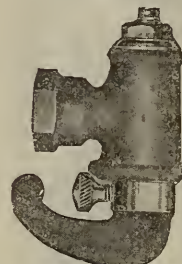
The Faultless Sprayer



Holds 1 quart. Weight crated, 3 lbs. Price 50c, 60c prepaid. Little Midget holds ½ pint; is just the sprayer for home use. Price 35c, 40c prepaid.

Lowell Sprayer

Lowell Compressed Air Sprayer—No back-breaking; no shirking the work. It is done too easily. No waste of liquid; the automatic valve is always closed except when touched lightly with the index finger. Holds three gallons. Fill two-thirds with liquid and pump air into it with all the pressure you can control. It is then ready to operate. One great merit of the sprayer is that the valve of the pump does not come in contact with the liquid, which is the great weakness of other sprayers. This is absolutely the



Bordeaux Nozzle

best sprayer yet offered. Price without curved rod extension, \$6.50. Brass Tank, \$8.00. Price of curved extension, \$1.00. Weight, crated, 20 lbs.

Bordeaux Nozzle

For Bordeaux Mixture and Whitewash. It cleans itself by reversing the aperture. Price—75c, postpaid, 85c.

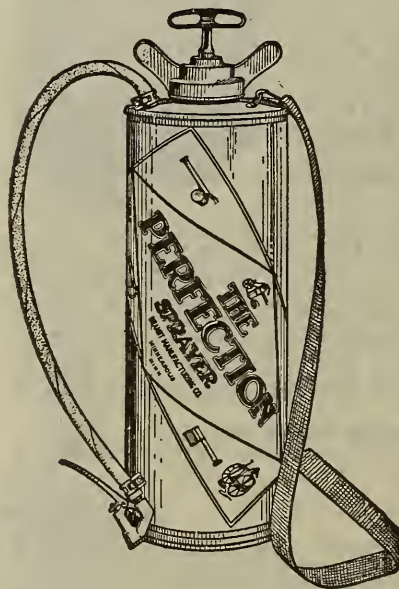
Bordeaux Mixture

Too much credit cannot be given to the merits of Bordeaux Mixture. Use it all the time and on all occasions, where blight results from fungus or microscopic insects. It is a good tonic for all sick plants. Price—(Per 1-qt. can 50c) (prepaid, within 150 miles, 75c).



Lowell Sprayer

Perfection Compressed Air Sprayer



The tanks are made of heavier metal than has ever been used in sprayers of this kind, making the tank practically unbreakable. The pump is 1¾-inch seamless brass tubing with a brass valve, and is sealed into the top of the tank with heavy threads following the construction used in the best makes of fire extinguishers.

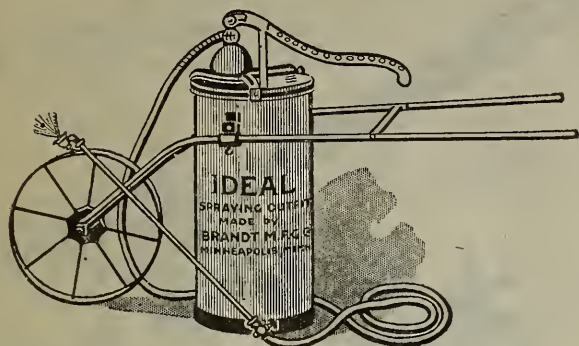
This Sprayer will handle Whitewash, Water Paints, Bordeaux Mixtures, etc., perfectly.

For whitewash and all heavy mixtures it is necessary to use a "W. W." Cap in nozzle, which is furnished with sprayers.

These sprayers are made in galvanized steel or brass as ordered. Weight, 9 pounds empty. All sprayers tested to 60 pounds before leaving factory. Weight, packed, 14 lbs. Galvanized Steel...\$6.00 All Brass...8.00

We keep on hand all minor parts. Perfection Nozzle, \$1.00; Disks, 10c; Dish Valve, 25c; Ball, 25c; Top Gasket, 10c; Metal Disk in Pump, 5c.

"Ideal" Spraying Outfit



This outfit has been designed to fill the requirements of the small gardener and fruit grower. It is light, compact and easy to operate. The tank holds fifteen gallons, is mounted so that the liquid will not slop or spill, and in a way that makes it easy to handle. The pump spreads across the top of the tank and is held firmly in place by a thumb nut. It has the largest air chamber of any spray pump of corresponding size. This enables the operator to keep a uniform pressure at the nozzle. The pump barrel is 1 1/4 inches in diameter, 7 inches in length. The valves are bronze balls 5/8 inch in diameter, which allows free passage for the liquids and prevents clogging. Both valves are removable. A pressure of one hundred and fifty pounds can easily be maintained. A mechanical agitator keeps the liquid well stirred.

Price—No. 30 complete, \$20.00. Wt. 75 lbs.

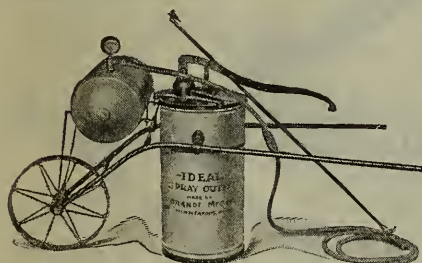
Price—No. 31 complete with compressed air tank, \$26.00. Wt. 80 lbs.

Ten Feet 3/8-inch Pressure Hose.

One "IDEAL" Nozzle.

Ten Feet Pipe Extension, in Three Pieces.

One Brass Shut-off Cock.



No. 31 with Compressed Air Tank

KNAPSACK SPRAYER

Just the thing for spraying celery, hen houses, small orchards. It leaves the hands free to operate. Made of brass or galvanized iron. Write for further description and price.



Knapsack Sprayer

The No. 25 "Yankee" Barrel Spray Pump

Made With Brass Nozzles, Brass Cylinder, Brass Ball Valves and Valve Seats

Quickly Attached to Any Barrel

The No. 25 "Yankee" double acting barrel spray pump for use with a barrel spraying outfit. All parts are submerged in the liquid, and therefore no priming is necessary.

The suction barrel is made of heavy brass, and all valves and valve seats are made of the best brass, ground together so that all parts are absolutely air-tight. These parts will not corrode or rust out, nor is any part of the pump affected by the strong mixtures.

The duplex agitator keeps the liquid stirred up and prevents the ingredients from settling to the bottom. The pump is regularly fitted with 5 feet of 1/2-inch 3-ply rubber hose of A-1 quality, and Vermorel Brass Nozzle, from which any size spray or stream can be thrown. It is impossible to clog this nozzle, and it cannot get out of order.

Only very slow and easy pumping is necessary. The "Yankee" is used extensively for all spraying purposes, especially for orchards, vineyards, shrubbery, and for whitewashing hen houses, stables, fences, etc.

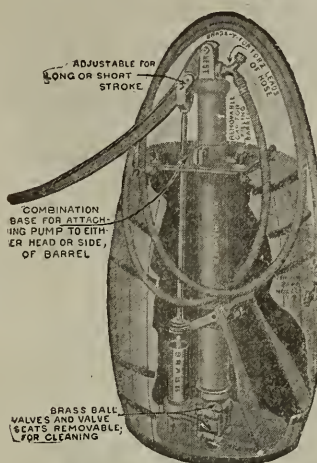
Price, complete, without barrel, \$11.00. Wt. 42 lbs.



No. 25 Spray Pump Complete

The No. 40 "Best" Barrel Spray Pump

Made With Brass Nozzles, Brass Cylinder, Brass Ball Valves and Valve Seats



No. 40—"Best" Spray Pump, Complete With Agitator, 15 ft. Hose and Vermorel Nozzle

Dimensions — Height over all, 43 ins.; boiler tubing, air chamber, diameter, 3 ins.; length, 32 ins.; cylinder diameter, 2 1/2 ins.

The Plunger Packing is a specially prepared, treated canvas, that is proof against the ruinous effects of strong mixtures, which would destroy a leather packing. The brass cylinder and all valves and valve seats are made of the best brass, ground together so that all parts are air-tight. These parts will not corrode nor rust.

By removing two bolts, the valves are accessible, making it easy to quickly clean pump when necessary.

All parts are submerged in the liquid, and therefore no priming is necessary.

Pump has duplex agitator which keeps the liquids thoroughly mixed. The air chamber is exceptionally large, making it easy to produce sufficient pressure for a continuous spray of great force with slow pumping. The

stroke of the lever handle may be changed by simply removing and replacing a single bolt, thus varying the pump's capacity.

Price, complete, without barrel, \$17.00. Wt. 60 lbs.

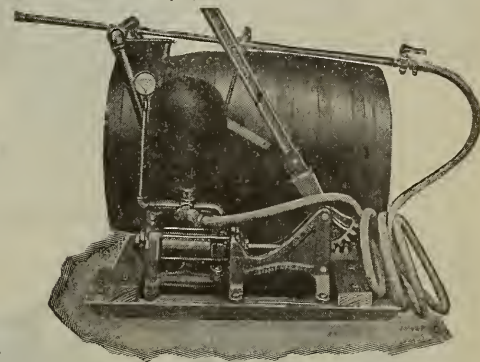
"No. 7 King"

Style A—2 by 7 inch heavy brass tubing. The pressure gauge is graduated to 300 lbs. The air chamber is extra large and made of pressed steel and is tested to 300 lbs. The handle is extra long and is made of malleable iron.

Equipped with:
15 ft. 1/2-in. 6-ply Pressure hose;
8 ft. Pine Extension in two pieces;

1 300-lb. Pressure Gauge;
1 Brass Shut-off Cock;
1 "Fog" Nozzle.

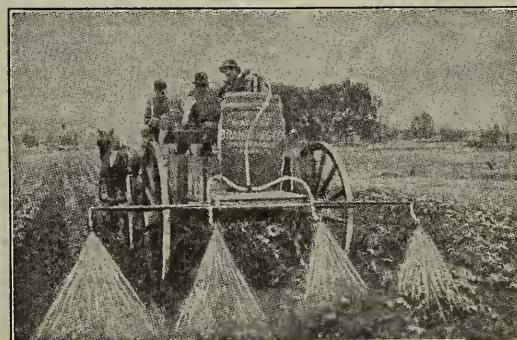
Style A, consists of Pump, Skids and full equipment as shown but no barrel. Shipping weight, about 135 lbs.



Style "A." Price \$25.00

Wagon Spray Boom

Price \$10.00. Weight 28 s.



Wagon Spray Boom

This boom can be used with any good barrel pump, but gives the best satisfaction in connection with our No. 25 or No. 40. It is light, strong and adjustable to every position. Will throw spray at any angle and can be folded so that you can drive thru narrow gates and can be set to spray between rows of grape vines, etc., two nozzles spraying to the right and two to the left. One barrel of liquid will cover three acres. A ten year old boy can operate it. The cheapest and best method of spraying a field of potatoes, celery, etc.

* * * * *

INSECTICIDES See Page 91

The ever increasing inroads of insects and disease has rendered it necessary to get adequate sprayers to meet this necessity. Call and see our assortment; it is complete.

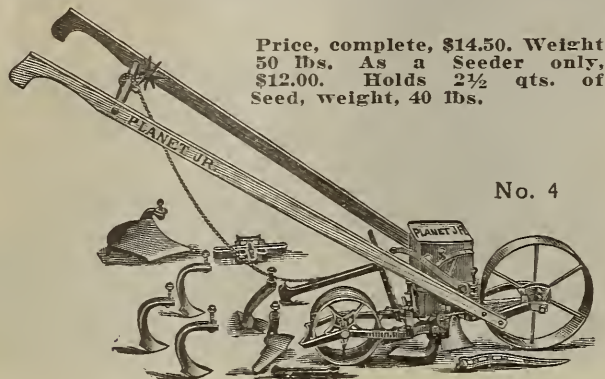
* * * * *

PLANET JR. GARDEN TOOLS

Hand Cultivators and Seeders have become a garden necessity. One man with a hand cultivator can do the work of six men with the hoe, and do it easier. All are good, but some are more adaptable for all purposes.

Space will not permit a detailed description of all the garden tools we offer, but a short reference to each will suffice to let you know what we have, and if interested, please write for special circular or detailed description of what you want.

No. 4, Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow



Price, complete, \$14.50. Weight 50 lbs. As a Seeder only, \$12.00. Holds $2\frac{1}{2}$ qts. of Seed, weight, 40 lbs.

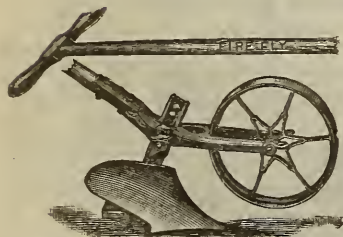
No. 4

This tool combines in a single convenient implement, a capital hill-dropping seeder, a continuous row seeder, an admirable single wheel hoe, an excellent furrower, a capital wheel cultivator and a rapid and efficient wheel garden plow. As a Seeder the No. 4 is accurate, simple, durable, reliable and easy running, doing first-class work in every particular. Price, complete, \$14.50.



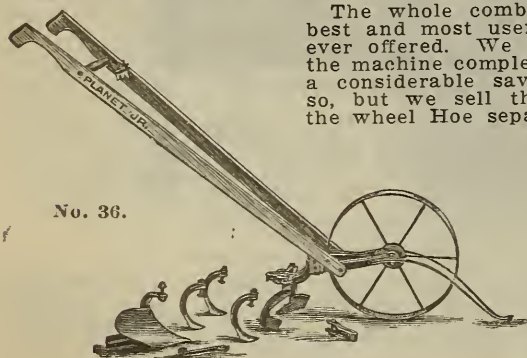
No. 25—Price \$17.50. Weight, packed, 61 lbs. Holds $2\frac{1}{2}$ qts. of seed.

No. 25



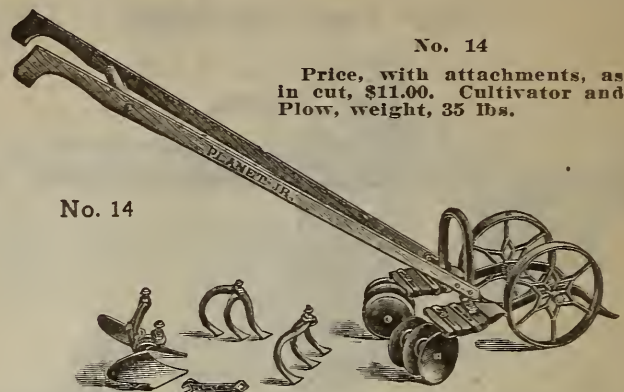
Planet Jr. Fire Fly.—1 plow only. Price, \$3.35. Weight, packed, 30 lbs.

No. 36 Planet Jr. Single Wheel Hoe, Cultivator and Plow. Weight, packed, 33 lbs. Price, complete, \$8.50.



No. 36.

The whole combination is the best and most useful we have ever offered. We advise buying the machine complete, as there is a considerable saving by doing so, but we sell the seeder and the wheel Hoe separately, if desired. The extra attachments will also fit the No. 6 machine complete with the No. 36 Wheel Hoe.



No. 14

Price, with attachments, as in cut, \$11.00. Cultivator and Plow, weight, 35 lbs.

No. 14

No. 14 Planet Jr. Double Wheel Disc Hoe

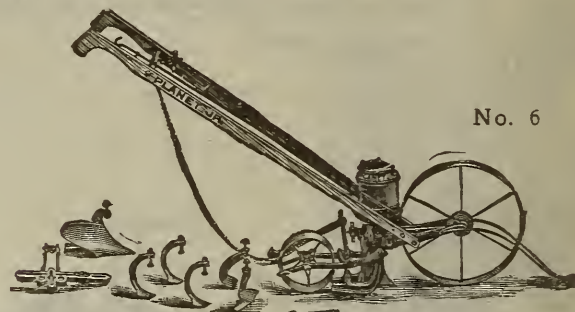
This new tool will give excellent satisfaction; is especially pleasing to all who work peat lands. There are three oil tempered discs on each side.

The set of prong cultivator teeth are constructed on entirely new lines, and will be found invaluable in general cultivation.

The plows are the regular Planet Jr. model and are continually valuable for furrowing, covering and plowing.

Price, complete, \$11.00.

No. 6 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow. Price, complete, \$18.50. Weight, packed, 63 lbs. As a Seeder only, \$15.25; as a Wheel Hoe only, \$8.50.



No. 6

This is our latest Combined Hill and Drill Seeder and Wheel Hoe, and after three years' gratifying use in the field, every detail has been perfected.

What It Will Do.—It drops all garden seeds in hills and sows in drills, with the greatest regularity, in a narrow line, to any exact depth required, covers, rolls down and marks the next row, all at one passage. As a wheel hoe, it hoes, cultivates and plows all garden crops, completing a row at every passage, up to 16 inches in width.

No. 28 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator, Rake and Plow.

This is the best and most complete Hill and Drill Seeder. It is the culmination of forty years' experience. It corrects every defect. Wt. packed, 64 lbs. Price \$18.00.



No. 28

No. 29 Planet Jr. Hill and Drill Seeder only. Same as No. 28. Wt. 54 lbs. Price \$15.00.

No. 16 Planet Jr. Single Wheel Hoe, Cultivator, Rake and Plow. Packed wt. 23 lbs. Price \$8.00.

No. 17 Planet Jr. Single Wheel Hoe, Cultivator and Plow. Packed wt. 21 lbs. Price \$7.00.

No. 17½ Planet Jr. Single Wheel Hoe and Cultivator. Packed weight, 19 lbs. Price \$6.25.

No. 39 Planet Jr. Single Wheel Hoe, Cultivator and Plow. Packed weight, 23 lbs. Price \$8.00.

No. 12 Planet Jr. Double and Single Wheel Hoe Combined.—1 pair 6-in. Hoes, four steel Cultivator Teeth, 1 pair Plows and two leaf lifters. Packed weight, 31 lbs. Price, \$10.00.

Planet Jr. No. 31

The No. 31 is a New Planet Jr. Combined Seeder and Wheel Hoe designed for small gardeners. It combines a thoroughly reliable Seeder that will sow all garden seeds from the smallest up to peas and beans with a first-class light running Wheel-Hoe. A practical tool for a man, the growing boy or for the woman who delights in having a good garden but who has little time to spend in it.



No. 31

Price, complete, (No. 31)\$9.50
As a Seeder only (No. 32) 7.00
As a Wheel Hoe only (No. 33) 4.75

No. 20

Planet Jr. Fertilizer, Pea and Bean Seeder

Price Complete, \$17.50. Packed weight, complete, 83 lbs.

IRON AGE IMPLEMENTS

The Iron Age Cultivators are very popular because of the large wheel which has made it easier to work. It is well made and gives perfect satisfaction wherever used.

No. 1—The change from a Seed Drill to a Double or Single Wheel Hoe is quickly made. The photograph shows the Double Wheel Hoe with side shoes applied.

"Iron Age" Double and Single Wheel Hoe. Price \$8.50.
Weight, packed, 40 lbs.



No. 6

No. 19—To meet a demand coming from some sections for a Weed Plow and Cultivator equipped with a higher wheel than anything we have previously offered, we designed our No. 19 "Iron Age" Wheel Plow and Cultivator. In doing so it will be noticed we have kept in mind those excellent features which have made our whole line of "Iron Age" Garden Implements so popular, that is, lightness combined with strength.



No. 19. "Iron Age" Wheel Plow and Cultivator. Packed Weight, 22 pounds. Price \$4.50

THE COLUMBIA MACHINES

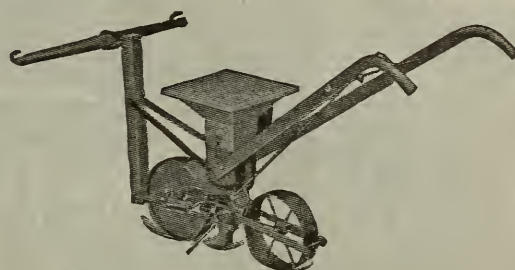
Write for Circular

The Greatest Seeding Machines in the World

They sow any kind of seed, large or small. They are all A POSITIVE FORCED FEED. Every seed is carried to the ground and covered; not a seed can escape, and not a seed can pass through the machine nor escape to the ground until the machine is in gear and moves forward and is ready to do its work; nor can a seed be shaken out or get to the ground when the machine is out of gear. A very important advantage possessed by no other planter. They are the simplest of all planting machines; the most certain and most complete planters in the world. WONDERFUL LITTLE MACHINES; plant all kinds of seeds, from the smallest to the largest.

The Columbia Hand Planter

You can plant from one inch apart to ninety-six inches apart by the simple manipulation of the disk wheel and the cylinders. With this drill you can sow any seed in any quantity any distance apart up to eight feet. It will sow your pepper, tomato, and any other crops in the field that now must be done by transplanting. It is a universal planter because there is nothing in the seed line from the size of lima beans to turnip seed that it will not plant. With special apparatus it will plant shelled peanuts without crushing the seed. For hand planter, Price \$14.00. Weight 85 pounds.



The Bacon Hand Drill



Bacon Hand Drill

We have been handling the Bacon Drills since 1899, and the many customers who are using them are unanimous in praise of their durability and accuracy. All who have used this drill claim it is the most durable of all, absolutely reliable to sow evenly from one end of the row to the other. Has angle steel frame with Hill Dropper, Agitator and Front Wheel Extensions of Malleable iron, giving strength with lightness.

The Hill Dropper will deposit seeds in hills, 9, 12, 18 or 36 inches apart.

The feed, while simple, handles a very large variety of seed, getting an even distribution that is unequaled, and very noticeable in sowing Salsify, Parsnip, Prickly Spinach, Peas, Beet, etc., getting an even row with light seeding.

The feed will also handle Phosphates, which can be sown before or after seeding.

The Drills have a Shoe Opener, which deposits seed in a narrow line, allowing close cultivation, saving hand labor. No. 10—Hill and Drill Seeders. \$8.00.

GARDEN TOOLS FOR EVERY PURPOSE

Our line of tools is very complete. It is hardly possible you could wish for anything we do not have. We have added some low priced drills and cultivators, not because they are inferior, but they are built for the small gardener who has little use for a drill, but cannot get along without one.

EXTRA PARTS FOR PLANET JR. TOOLS

We carry a full line of extras. When in need of any, write us, describing the part wanted as accurately as you can, giving the number of the casting, or send a picture or pencil drawing.

COLUMBIA PLANTER WITH HORSE ATTACHMENT

Just the seeder for large gardeners. It does the work as perfectly and as economically as the hand planter. It is heavier than the hand planter, and fitted with a single-tree attachment and extra large adjustable hopper. Weight packed for shipment 100 pounds. Price, complete, \$23.00 f. o. b. here.

We aim to have on hand cylinders for every kind of seed. When ordering special cylinders, consult your circular, that you may get the one you need.



410-Egg Incubator for Only \$25⁰⁰

SPECIAL OFFER

1 Los Angeles Brooder-
Heater 1000 Chick
Value - - \$18.50
12 Chick Feeders - 3.00
12 Chick Founts - 3.00
1 Grain Mill - - 3.50
100 lbs. A. & M.
Chick Feed - - 3.50

and the

410-EGG INCUBATOR

all for the small sum
of

\$50⁰⁰

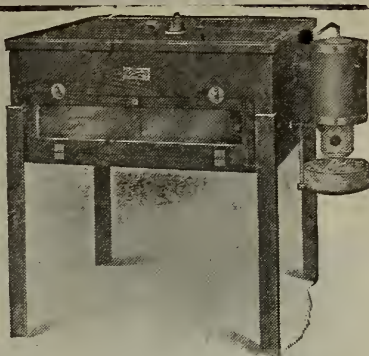


The Famous Essex - Model "Standard" Incubators illustrated are recognized as the leaders among high-class machines. They are made of high grade chestnut (the only hardwood incubators made). Double walls perfectly packed and insulated with layers of laminated cotton and straw-board. Double glass door. Equipped with "Essex" Corrugated Thermostat (patented), insuring automatic regulation. Entirely self-ventilating, no slides to adjust or to confuse you.

HOT/AIR INCUBATORS

HIGH IN QUALITY—LOW
IN PRICE

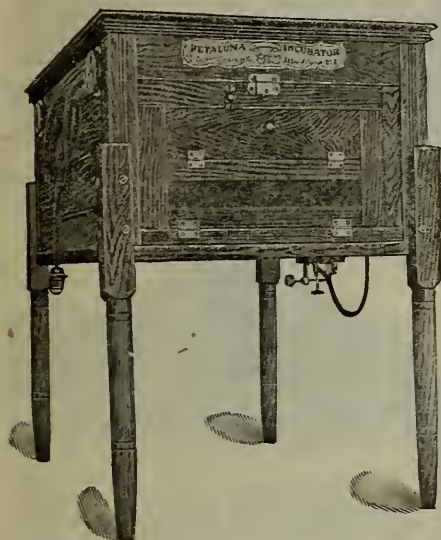
Model C.—When considering this 200-Egg Essex-Model "Middle Price" Incubator costs only 9 cents an egg—and then compare it with any other make, you will say, "It is the best on earth at the price." This size that suits most poultrymen. It can be operated with any number of eggs from 200 downwards. It affords the beginner room to grow, and is therefore an economical size to buy. We call it a **MIDDLE-PRICED** machine, out on account of its quality it is classed among the higher-priced incubators. Double walls packed and perfectly insulated. A special bargain this year, \$15.00.



Prices as follows:

Model B, 120 egg.....	\$12.00
Model C, 200 egg.....	15.00
Standard 2, 175 egg.....	17.00
Standard 3, 410 egg.....	25.00

PETALUMA ELECTRIC INCUBATOR

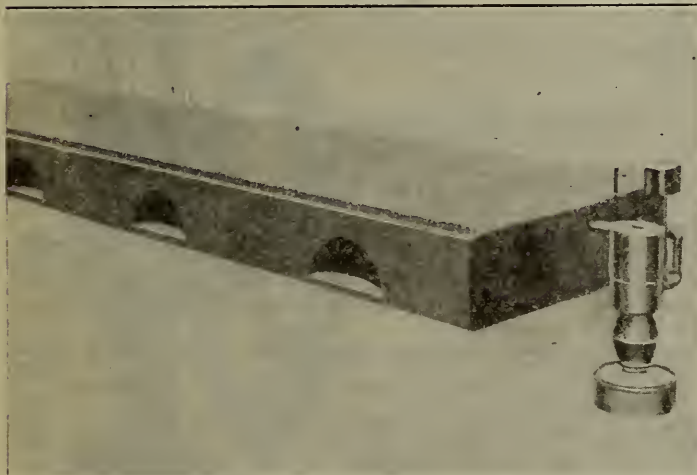


In keeping with our advanced ideas in the field of artificial incubation we were the first to introduce a real practical electric incubator. One that does not require an electrician to operate it. One that is simple enough for any person to understand. One that is unique in construction, safe, reliable, and using but a small amount of current. One that controls the heat perfectly and will not get out of order. One of very few parts and very simple mechanism, and will hatch any thing that can be hatched.

STRONGEST, HEALTHIEST CHICKS. N. E. Luce, Publisher of the California Journal, Los Angeles, Cal., writes March 21, 1916: "I wish to write you about my success with the Petaluma Electric Incubator. I have run machines for over 20 years and never ran one with such complete satisfaction as I did this Electric. I have just taken off my first hatch, which ran over 80 per cent. It is less trouble, less expense and brings out the strongest chicks I ever saw. They hatched out quickly, dried off right away and are sturdy, strong little fellows. You may refer anyone you wish to me and I will take the time to answer them in regard to it. I am very much pleased with the machine."

PRICE OF ELECTRIC INCUBATORS

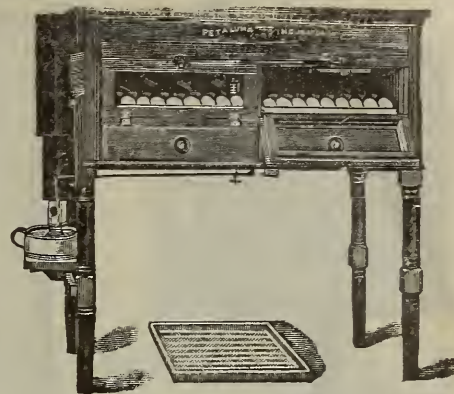
Models 193 and 193-E	504 Eggs Capacity	\$50.00
Models 191 and 191-E	252 Eggs Capacity	30.00
Models 190 and 190-E	126 Eggs Capacity	22.00
Models 189 and 189-E	63 Eggs Capacity	12.50



Jubilee Indoor Brooder

PETALUMA INCUBATORS AND BROODERS

Petaluma Incubators and Brooders are made of the celebrated California Redwood, the best in the world for the purpose. They are made in the best equipped factory, and the fact that they have been giving satisfaction in hatching all kinds of eggs, in all climates and under all conditions, and doing this for many years before any other incubator of the present time was known, and have continued to do so right up to the present moment, certainly stamps them as "Standard of the World."



PRICE LIST OF INCUBATORS

Models 59-59½	Capacity 54 Eggs.....	\$10.00
Models 80-80½	Capacity 126 Eggs.....	20.00
Models 81-81½	Capacity 216 Eggs.....	27.00
Models 82-82½	Capacity 324 Eggs.....	35.00
Models 83-83½	Capacity 504 Eggs.....	50.00

JUBILEE INCUBATORS

The Jubilee Regulator is the most simple, the most sensitive and the most durable of any regulator in existence. It will not stick, as there are no joints to catch; plays perfectly free, and when the heat of the egg chamber reaches the degree to which it is regulated the expansion of the regulator causes a balance valve to raise off the escape flue. This allows the heat direct escapement, the circulation is retarded, and the radiation of the heat in the egg chamber is decreased—all this allows just sufficient heat radiated from the pipes to keep the temperature of the egg chamber to the desired degree.



When outside influences tend to decrease the temperature of the egg chamber the regulator instantly detects the influence, the valve is allowed to close the direct escape, the heat of the lamp is then forced through the indirect route, the boiler is once more utilizing the entire heat of the lamp, the water in the pipes sets up a quicker circulation, which in turn imparts additional heat to the atmosphere of the chamber.

The Jubilee system of applying moisture is the most perfect ever devised. The boiler chamber is provided with a special moisture pan, which derives its heat from the Jubilee boiler which the boiler chamber encloses. By means of a feed cap and a draw-off tube, it is possible to withdraw the last atom of moisture, or in five minutes' time increase the moisture to saturation, and more important still, all this is accomplished without opening the door of the egg chamber or exposing the eggs.

Capacity	Dimensions	Price
108-egg Jubilee...110 lbs.	2 ft. 8 in.x3 ft.	\$ 22.00
216-egg Jubilee...150 lbs.	2 ft. 8 in.x4 ft. 3 in.	32.00
324-egg Jubilee...200 lbs.	2 ft. 8 in.x5 ft. 3 in.	40.00
504-egg Jubilee...260 lbs.	3 ft. 2 in.x7 ft. 2 in.	50.00
1056-egg Jubilee...500 lbs.	4 ft. 10 in.x8 ft. 4 in.	100.00

JUBILEE INDOOR BROODERS

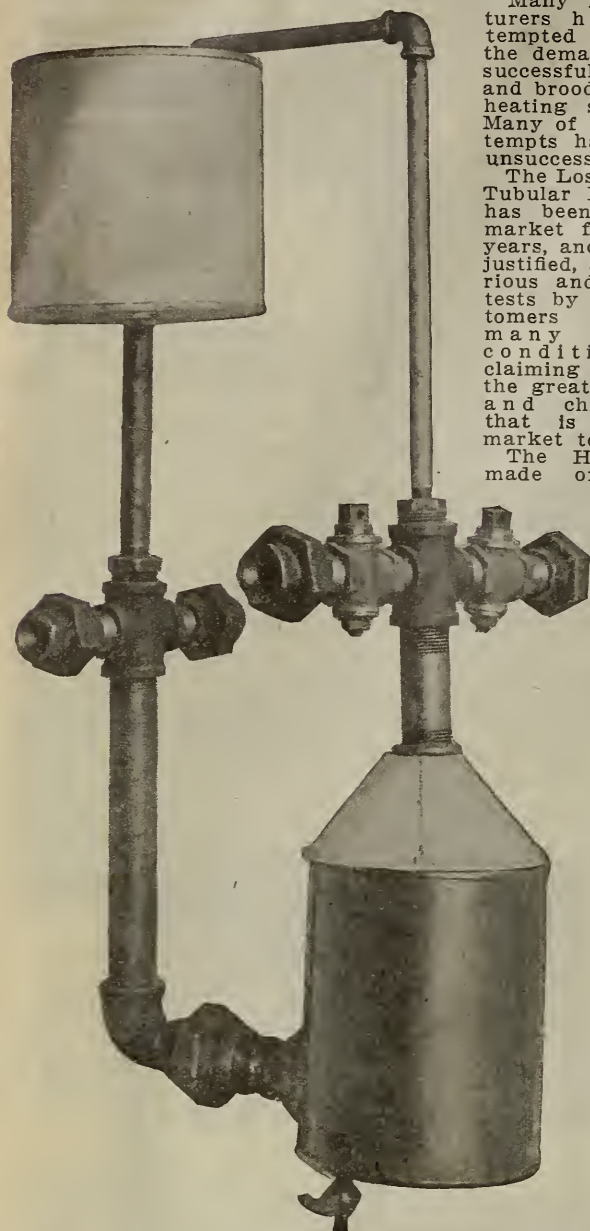
Capacity	Weight	Dimensions	Price
4-section—200 chicks	170 lbs.	2 ft. 6 in. x 10 ft.	\$18.00
3-section—150 chicks	135 lbs.	2 ft. 6 in. x 7 ft.	16.00
2-section—100 chicks	100 lbs.	2 ft. 6 in. x 5 ft.	14.00

THE LOS ANGELES BROODER HEATER

Many manufacturers have attempted to meet the demand for a successful brooder and brooder house heating system. Many of these attempts have been unsuccessful.

The Los Angeles Tubular Heater has been on the market for seven years, and we feel justified, after various and careful tests by our customers under many different conditions, in claiming it to be the greatest labor and chick-saver that is on the market today.

The Heater is made of heavy

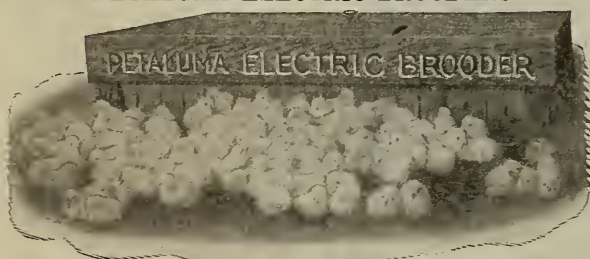


rolled copper, including 16 half-inch brass tubes, giving very large heating surface, and is almost indestructible under ordinary conditions. The heat comes from a gasoline burner, which checks the flow of gasoline at once in case of fire, and is extinguished without any loss.

The regular size is \$18.50
Oblong Boiler 24.50

Including two burners.

PETALUMA ELECTRIC BROODERS



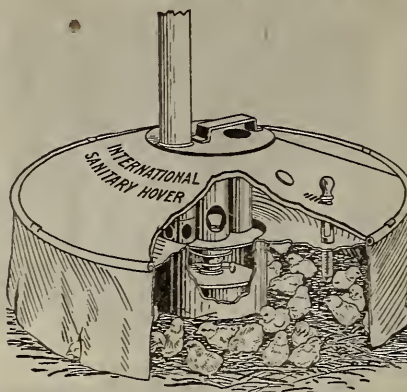
Until the advent of the Electric Brooder made by us, it had been thought that brooding chicks by electricity would be altogether too expensive, but actual experience is always the best proof. Those who have used the Petaluma Electric Brooder say that it is not only cheaper than any other method, but it involves less labor to the operator, is not subject to the dangers of fire even in the hands of careless operators, the chicks grow faster, and are as large at four weeks as chicks by any other method in five weeks.

Price Petaluma Electric Brooders
(Alternating Current, only)

Model 100	Capacity 100 Chicks.....	\$10.50
Model 250	Capacity 250 Chicks.....	15.00
Model 500	Capacity 500 Chicks.....	25.00

INTERNATIONAL SANITARY HOVER

The 5 Big Reasons Why It Is Perfect



1. Adaptability. The Sanitary Hover can be used anywhere that there is protection for the chicks from wind and rain. It has made the expensive brooder house wholly unnecessary.

2. Warmest at the Curtain. The Sanitary Hover is not a center heat hover. It is warmest at the outer edge, which causes the chicks to distribute themselves near the curtain and prevents crowding and smothering of chicks.

3. Ventilation. The Sanitary Hover is the only perfectly ventilated

brooding device. It supplies plenty of fresh air for all the chicks, with no drafts. The diffusive principle by which the Sanitary Hover is ventilated is identical in action with the diffusive action of the feathers of the mother hen.

4. No carpenter work. The Sanitary Hover can be carried around with ease and is ready for use wherever it may be dropped. No carpenter work is required to set it up—no cutting of holes or building of platforms. All one has to do to set it up is to set it down.

5. No kneeling. The lamp holder of the Sanitary Hover can be lifted out by a person standing up. There need be no kneeling in dust or mud.

Price—\$9.50.

THE MODEL COAL-BURNING HOVER

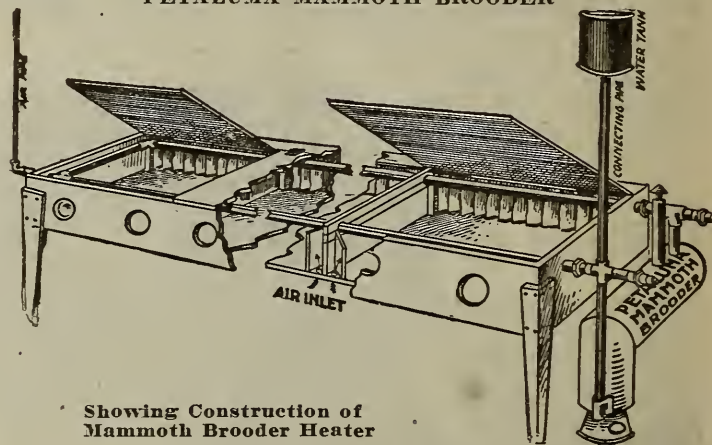
The Model Coal-Burning Hover is the modern, sanitary, efficient and convenient way of brooding chicks. The reduction of fire risk alone is sufficient for many to throw out the "junk" and put in the Model Coal-Burning Hover.

In economy, durability, efficiency, safety, convenience and simplicity, the Model Coal-Burning Hover is so far ahead of the old fashioned oil burner Hover, that there is no comparison between them. Both the chicks and the operator are perfectly satisfied with the Model Coal Burning Hover.

Model Hover. Price \$20.00
Correct Hover. Price 18.00



PETALUMA MAMMOTH BROODER



Showing Construction of
Mammoth Brooder Heater

Petaluma Mammoth Brooder Heater, \$10.00; Water Tank and Connecting Pipe, \$1.00; Gasoline Tank, \$1.15; Gasoline Connecting Pipe, 60c; Chimney, 25c. This Heater with either No. 3 or No. 4 Gasoline Burner, will heat 25 to 40 feet. The entire combination, complete, with No. 3 Burner, \$16.50.

The prices quoted on the combination do not include any of the pipe for the Brooders, except that from the Heater up to and including the unions, which are shown close to the heaters.

Petaluma Sectional Brooder Heater and Water Tank... \$5.50
Lamp Fount, Burner and Chimney 1.25

No. 1 Gasoline Burner, Gasoline Tank and Gasoline Connecting Pipe, to heat 10 to 15 feet..... 3.50

Petaluma Duplex Brooder Heater and Water Tank.... 7.00
Lamp Fount, Burner and Chimney 1.50

No. 1 Gasoline Burner, Gasoline Tank and Gasoline Connecting Pipe, to heat 15 to 20 feet 3.50

Thoroughbred Rhode Island Red Eggs, \$1.50 per Setting.

MANN BONE CUTTERS

The Only Mill That Will Cut Green Bone and Not Clog

The Mann's Green Bone Cutter is offered to the poultry world on a warranty to produce a perfectly edible poultry food, with no waste, from any lot of green bones with less labor and less annoyance than any other bone cutter.

We send the Mann's to any responsible poultryman with this understanding: if you are not satisfied that it meets every claim we make for it, notify us, and we will give you instructions to return the machine, and will, upon receipt of same refund purchase price. Could you ask more?

The Mann's is the only machine which has a self-governing feed, producing uniform pressure against the knife, whether the bone be hard or soft. You set the machine to suit your strength, and it never requires more power than you set it for.

No. 5, intended for flocks ranging from 15 to 25.

No. 7, intended for flocks ranging from 40 to 100.

No. 7½, intended for flocks ranging from 40 to 100.

No. 9, intended for flocks ranging from 100 to 300.

No. 11, intended for flocks ranging from 300 to 500.

No. 12, intended for flocks ranging from 1000 to 1500.

MANN'S NO. 7

The New No. 7 is mounted on a strong iron stand and has patent automatic governing spring feed. Large, open-hinged cylinder, giving instant access to all working parts, has six knives, gear guard, anti-clog device, heavy balance wheel and other improvements. (See cut.)

Price List of Mann's Bone Cutters

No. 5C (with crank handle) Price \$7.75, wt. 30.

No. 5B (with balance wheel) Price \$10.00, wt. 55.

No. 5BM (B. W. and iron stand) Price \$13.00, wt. 80.

No. 7 (B. W. and iron stand) Price \$15.00, wt. 107.

No. 7½ (hand or power) Price \$21.00, wt. 150.

No. 9 (B. W. and iron stand) Price \$22.00, wt. 163.

No. 11 (power machine) Price \$30.00, wt. 215.

No. 12 (power machine) Price \$35.00, wt. 260.

No. 15 (power machine) Price \$67.50, wt. 420.

We only carry a few sizes in stock viz., 5B, 7, 11, 12. If parties want other sizes, we get them on orders.

Model No. 7—Price \$15.00

MODEL HAND GRINDER

The original family grist mill,—not a cheap imitation. Model Mills have more than one outright copy but are far superior. Model Mills have harder burrs which run accurately, they are painted to a high finish, not dipped. The parts are smooth castings, carefully ground and fitted. The Mills are individually boxed,—not crated.

Model Mills last longer, do more and better grinding and have a broader range of usefulness.

List of Sizes We Carry

No. and Capacity	Wt. Price
1½—½ to 1 bu. per hr.	\$3.50
2—¾ to 2½ bu. per hr.	\$5.50
3—1 to 3 bu. per hr.	\$8.00

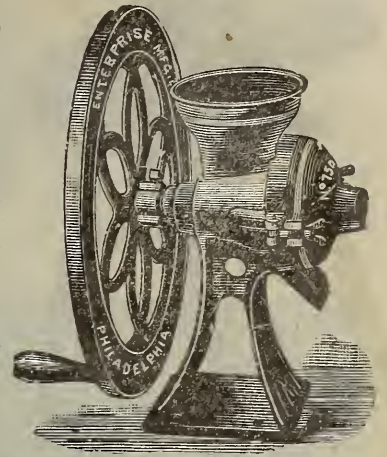
No. 3 Hand Grinder Price, \$5.50

GRINDING MILLS

ENTERPRISE BONE AND GRAIN MILL

One of the essential tools for poultry men. Can be used for cracking grain, bone, shell or grit.

The Burrs are made from cold chilled steel of the best quality. This mill has for many years been the standard machine of the market, on account of its fine workmanship and durability. If you want a mill that will last and do your work get the Enterprise. Weight with crate, 75 lbs. Price, \$9.50.



Shover No. 32.—In this mill are embodied all the good features of other hand-grinding mills to which have been added universal burrs or grinding plates that are adjustable for grinding coarse or fine. This machine grinds oats, barley, rye, corn, peas, dry bone, shells, etc., for feeding to poultry. It is a well designed machine, is strong and well made throughout, and of excellent finish; has a 16-inch fly wheel, is light running.

The capacity of this mill is not equaled by any other of the same size. Shipping weight, 40 lbs. Capacity one or two bushels per hour. Price \$5.50. Power Grinding Mill, Price, \$10.00.

Shover No. 32

Model Power Mill No. 4 For ½ to 2 H. P. Engines meets a long felt want for a small, reliable mill that will give satisfactory results, capacity, and service in connection with small farm engines from one-half to two horsepower.

Makes first-class corn meal or graham flour for the table. Easily the best of all small shelled grain mills.

Since its inception, has achieved greatest success. Lightest draft, largest capacity, finest grist. Just the thing for small engines.

Not a hand mill with a pulley, not a light weight, high speed makeshift, but a real Power Mill. Solely intended and constructed for belt power operation.

6 inch Cone Burrs of Steel Alloy Metal provide maximum grinding surface of greatest durability. Need least power, do best work and most of it.

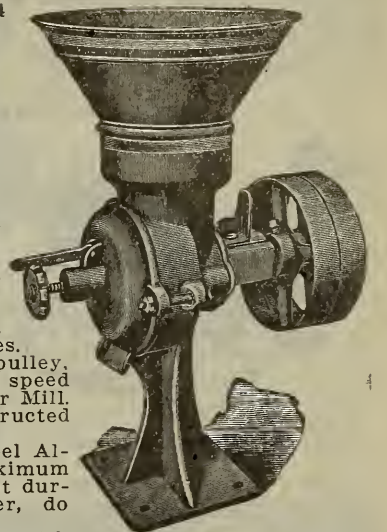
Round Case Cap is fitted with ball thrust bearing at end of main shaft. Shaft runs in long babbitted bearing—babbitted of the original formula, not cheap stuff.

Tight and loose pulley outside main frame. Mill started and stopped at will without removing belt or touching engine. Highly convenient.

Feed regulating slide is provided, quickly adjustable and securable by winged nut.

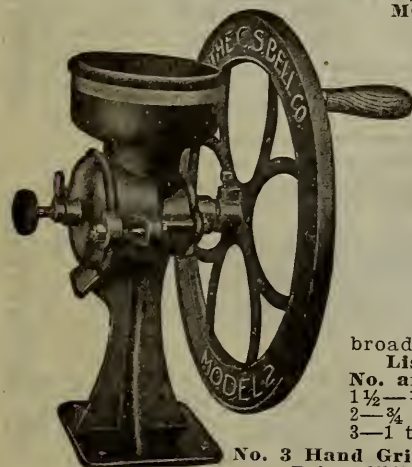
Burrs set to grind fine, medium or coarse by notched regulating wheel. Wheel positively locked by weighted lever. These features mean an output of uniform grist.

Top of main casting is ground inside and enameled white. Tin hopper, with wired edge, also enameled white. Easy to keep clean, neat in appearance.



No. 4 Power Grinder Price, \$15.00

Thoroughbred Rhode Island Red Eggs, \$1.50 per Setting.





Mann's Clover Cutter

Mann's Clover Cutter

Made entirely of iron and steel; cannot warp or shrink. It cuts any kind of hay or clover, either dry or green, and more rapidly than any other make. Each revolution of the balance wheel produces twelve cuts. Do not buy a clover cutter until you have seen Mann's.

It is strongly built. The workmanship is first-class in every particular, and it will last for years without repairs. It is not a toy or a rattletrap, but a thoroughly practical machine, offering the greatest value for the least money. Do not buy a clover cutter until you have seen the Mann's. Made either with or without the stand.

Prices:

With Stand \$12.00
Without Stand 10.00
Weight, crated, 90 lbs.

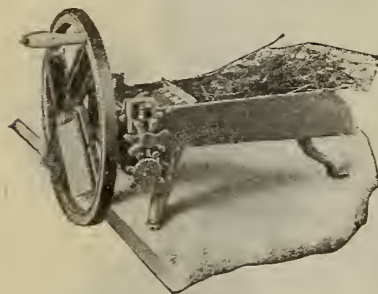
"NEW MODEL" CLOVER CUTTER

The "New Model" Clover Cutter is designed for cutting, either green or dry, such growths as clover, alfalfa, vegetable tops, etc., into $\frac{1}{8}$ -in. lengths.

These growths are the cheapest and most productive egg forming poultry foods for cold weather.

The feature that gives the "New Model" easy supremacy over similar machines is the cutting mechanism. The machine can be kept in perfect order at all times, because the cutter bar is adjustable and easily accessible, and the four 7-inch spiral steel knives can readily be removed for sharpening. Those who are familiar with "ordinary" cutter construction will appreciate these improvements. Price \$12.50.

THE GEM CLOVER CUTTER



The Gem Clover Cutter

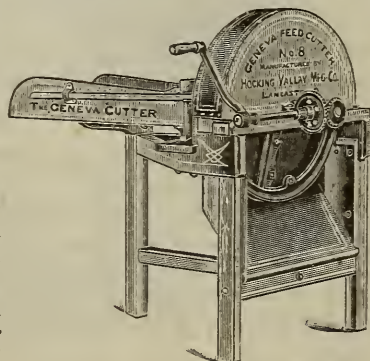
No better Cutter made anywhere. It's not a cheap affair got up to sell simply because it is a Clover Cutter and looks all right and used up in a year.

But a thoroughly first-class machine in every particular, built of steel and iron throughout. No pains have been spared to make it absolutely the best cutter for the poultryman.

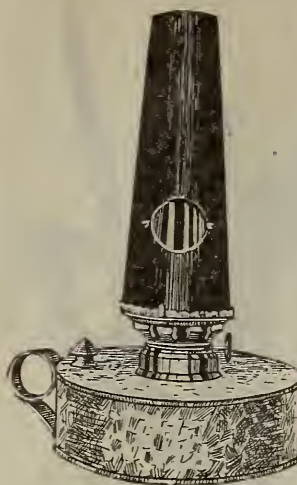
Cuts fine and even in lengths $\frac{1}{8}$ inch.
—With Stand, \$11.50; weight, 78 lbs. Without Stand, \$10.00; weight, 60 lbs.

GENEVA FEED CUTTER NO 6

This size has two nine inch knives and is intended for hand use only, but can be fitted for power also. It has ample size and capacity to accommodate any ranch from 1000 to 10,000 hens. It will cut $\frac{1}{8}$ -inch to $\frac{1}{4}$ -inch. The change is very simple and easily made. It is extremely light running and will cut any kind of feed. In material and beauty of finish it is all the most critical could ask. Price—\$30.00. f. o. b. Los Angeles. Wt. 200 lbs.



Price List of Incubator & Brooder Parts



Lamp Founts for Model O...50c
Lamp Founts for Model A...50c
Lamp Founts for Model B...75c
Lamp Founts for Model C...75c
Lamp Founts for Stand No. 1...50c
Lamp Founts for Stand No. 2...50c
Lamp Founts for Stand No. 3...75c
Lamp Chimney for Models, all sizes25c
Regulating Rods for Essex Model, complete\$1.00
Essex Model
For Portable Hover on all Brooders; Colony and Double Indoor Brooders, 90c.
Chimneys, 25c extra.
For Portable Hover and Model B. Brooders, style A and B Brooders, \$1.00.
Chimneys, 25c extra.
For Portable Hover and Chick Comfort Hover and for Portable Hover and Chick Hover and Colony C, 1913, 75c.
Chimneys, 25c extra.
Be sure to specify size and style of incubator and brooder for which lamps are wanted.
Add postage to all above prices.

Price List of Petaluma Incubator and Brooder Parts

Postpaid, 150 miles)

Lamp Founts Model 59, 80, 80½, 81¼, 50c.
Lamp Founts Model 82, 82½, 83, 83½, 75c.
Lamp Founts Brooder, 23, 25, 28, 50c
Lamp Founts Incubator Model 59, 80, 81, 60c.
Lamp Burner Incubator Model 80½, 81½, 50c.
Lamp Burner Incubator Model 81, 82, 83, 75c.
Lamp Burner Incubator Model 81½, 82½, 83½, 60c.



PRICE LIST OF JUBILEE INCUBATOR AND BROODER PARTS

Jubilee Incubator or Brooder Lamp by express, complete with No. 2 Sun-Hinge burner.....\$1.25
Jubilee Incubator or Brooder Lamp, by express, complete with No. 3 Sun-Hinge burner 1.50
Tested Jubilee Thermometer, postpaid75
Jubilee Egg Tester, postpaid35
No. 3 Sun-Hinge burner, postpaid..... .75
No. 2 Sun-Hinge burner, postpaid40
Lamp Wicks, all sizes, per doz..... .15
For 2-Section Indoor Brooder for Jubilee, f. o. b. here..\$8.00
For 3-Section Indoor Brooder for Jubilee, f. o. b. here.. 9.00
For 4-Section Indoor Brooder for Jubilee, f. o. b. here..10.00

Miscellaneous Incubator and Brooder Parts

Gas Burners for Petaluma, postpaid..... 2.75
Gas Burners for Jubilee, postpaid..... 1.00
Gas Burners for Model, postpaid..... 1.00
Regulating Disc for Petaluma, postpaid..... 2.50
Thermostat Bar for Jubilee, postpaid..... 3.00
Thermostat Bar for Model, postpaid..... 2.00
Regulating Rod and Weight, Petaluma, postpaid..... 1.25
Regulating Rod and Weight, Jubilee, postpaid..... 1.25
Regulating Rod and Weight, Model, postpaid..... 1.25
Regulating Screws, postpaid25
Regulating Pins, postpaid25
Hangers for Petaluma, postpaid..... .25
Hangers for Model, postpaid..... .50
Rubber Corks for Jubilee, per doz., postpaid..... .30

Prices of Extra Parts for Electric Incubators (Alternating Current, only)

Uni-lect-ers for Models 190, 191, 193, each.....\$1.00
Uni-lect-ers for Model 189, each75
Pilot Lights, each30
Thermometers for Incubators, (metal back) each..... .75
Thermometer Holder, each25
Thermometer for Brooder, with holder, each..... .50
Egg Testers, each35
Air-cell Indicators, each10
Regulators, each 2.00
Regulator Frame, each50
Regulator Pin, each25
Petaluma Electric Breaker, each 5.00
Egg Trays, galvanized steel, corrugated, for Models 190, 191, 193 1.25
Egg Trays, galvanized steel, corrugated for Model 189. .75
Nursery Baskets for Models 190, 191, 193..... .75
Prices f. o. b. Los Angeles.

EGG BOXES AND SHIPPING BOXES

This Self-Locking Carton holds 2 rows of 6 eggs each and will pack in a standard egg case of 30 dozen. It is always ready to hand out, thus saving handling.

	Wt.	Price
12 Boxes	2 lbs.	\$.20
25 Boxes	3½ lbs.	.35
50 Boxes	7 lbs.	.65
100 Boxes	14 lbs.	1.25
500 Boxes	70 lbs.	5.75
1000 Boxes	140 lbs.	11.00



Self-Locking
Egg Carton

Any of these articles ordered by Parcel Post add postage.

**HUMPTY-DUMPTY EGG CARRIER**

One of the handiest egg carriers on the market. This carrier will hold twelve (12) dozen eggs. Can be folded flat for shipment, and is made of strong but light wooden slats fastened with strong steel wires. Very handy and something every poultryman should have. Price, 75c each. f. o. b. Los Angeles. Weight 6 lbs.

Moehrle's Improved Disinfecting Nest Egg fills the bill. It drives away the vermin, but does not injure or annoy the hen. The disinfectant is powerful, yet soothing. It works while the hen works and there are no bad after-effects. The fumes will not taint the other eggs.

It is simple in construction and can be handled with safety. Fill the metal container with the disinfectant from every two to four weeks. The fumes circulate underneath the hen, killing the lice and leaving the bird in a healthy condition.

Two eggs with the necessary disinfectant and a filler securely packed in a small carton for 50c; postpaid, 55c.



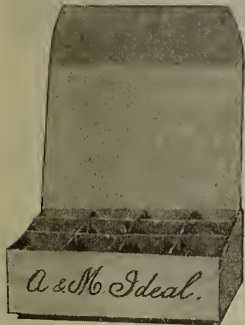
F. O. B. Los Angeles

A. & M. IDEAL EGG BOX

This carton holds one dozen of 3 eggs wide by 4 eggs long, and are used by grocers who do not pack in cases. Prices are as follows:

	Wt.	Price
12 Boxes	2 lbs.	\$.15
25 Boxes	3½ lbs.	.30
50 Boxes	7 lbs.	.55
100 Boxes	14 lbs.	.90
500 Boxes	70 lbs.	4.35
1000 Boxes	140 lbs.	8.75

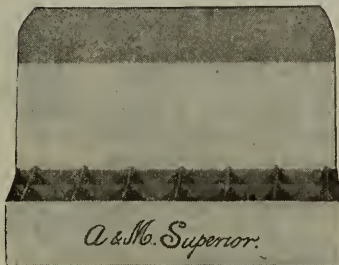
F. O. B. Los Angeles

**A. & M. SUPERIOR EGG BOX**

This carton is 2 eggs wide by 6 eggs long, painted with plain color inside. Strong and durable.

	Wt.	Price
12 Boxes	2 lbs.	\$.20
25 Boxes	4 lbs.	.35
50 Boxes	7 lbs.	.65
100 Boxes	14 lbs.	1.25
500 Boxes	70 lbs.	5.75
1000 Boxes	140 lbs.	11.00

F. O. B. Los Angeles

**A. & M. SUWANEE EGG BOX**

This carton hold 2 rows of 6 eggs long. The box is of a blue lining, also the fillers are of blue color. This makes the egg show so nice, white and clean. This is the most satisfactory box you can buy.

	Wt.	Price
12 Boxes	2 lbs.	\$.20
25 Boxes	4 lbs.	.35
50 Boxes	7 lbs.	.65
100 Boxes	14 lbs.	1.25
500 Boxes	70 lbs.	5.75
1000 Boxes	140 lbs.	11.00

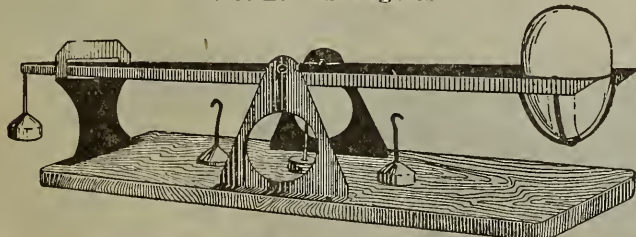
F. O. B. Los Angeles

**WALLACE EGG BOX**

It is the one carrier that will safely deliver the goods irrespective of jars, jolts, or pressure coming from any angle. When the carrier is packed for shipment you can stand on top, bottom, ends, or sides without its buckling or crushing. An egg packed properly can be handled roughly without fear of breaking.

	Price per doz. Boxes	Wt. per doz. Boxes
1 Doz. Size 15c each,	\$1.20	10 lbs.
2 Doz. Size 20c each,	1.80	22 lbs.
3 Doz. Size 30c each,	2.40	30 lbs.
6 Doz. Size 55c each,	4.50	60 lbs.
15 Doz. Size \$1.00 each,	9.00	150 lbs.

F. O. B. Los Angeles



Is the only Egg Scale made that will give the correct grading within a range of 17 to 30 ounces to the dozen. Standards of eggs as follows: No. 1 Pullet, 20 to 22 oz.; No. 2 Pullet, 19 to 20 oz. Price \$1.00, postpaid \$1.10.

Thoroughbred Rhode Island Red Eggs, \$1.50 per Setting.

**A. & M. LICE KILLING NEST EGGS**

Our Lice Killing Nest Eggs are almost an exact imitation of the real chicken eggs, and contain a powerful disinfectant which is guaranteed to expel lice and vermin. Put up in boxes of one dozen each, at 65c. Weight 2 lbs.

CHINA NEST EGGS

We handle only the best grade of glass eggs, strong and durable. 2 for 5c; 25c dozen. Postpaid, 35c.

WIRE CHICKEN COOP

This Steel Wire Shipping Coop is made from the ½-inch steel wire electrically welded, has no loose joints, is very light and handy to use. It has a sliding gate on top where birds are put in. Has strong hardwood bottom floor, wired on to frame, and in fact contains just what any poultry dealer would want to ship chickens in. It is almost indestructible, being made so strong, and on account of being so light cost but little freight or express. They last for years. Price, chicken size, \$2.50. Weight 20 lbs. Turkey size, \$2.75. Weight 25 lbs.

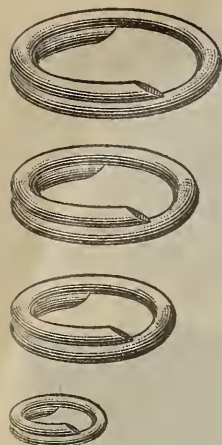
**STEEL WIRE SHIPPING COOP**

LEG BANDS FOR POULTRY

Spir-ol Leg Bands are made in six colors and all sizes, and are put on and taken off like a key ring. Can't drop off. Colors are black, white, red, yellow, blue, green, purple, light blue, maroon and pink. In ordering please state color wanted, also name of breed, Leghorn, Rocks, Rhode Island Reds or Turkeys. It enables us to fill the order satisfactorily. Prices:

12 Bands for	.....\$ .15	postpaid
25 Bands for	.....	.25 postpaid
50 Bands for	.....	.50 postpaid
100 Bands for	.....	.75 postpaid
500 Bands for	.....	3.60 postpaid
1000 Bands for	.....	7.00 postpaid

Spir-ol Band for Chick, Bantam and Pigeon size as follows: 12 for 15c; 25 for 25c; 50 for 40c; 100 for 65c; 500 for \$3.00; 1000 for \$5.25. These bands come in the same colors as given above for Poultry Bands.



Spir-ol Leg Band

CLIMAX LEG BANDS

This Band is easy to put on or remove, no tools required. The rings are made of spring brass, and so bent that the tag acts as a clasp holding them securely in place. Made in three sizes. In ordering always mention the variety of fowl wanted for. Prices (15c for 12) (25c for 25) (50c for 50) (75c for 100, postpaid).



MOE'S SELF-LOCKING LEG BAND

Locked Simply by Pushing it Together. Please order by breed and whether male or female. (12 bands,

12 Bands	.....\$ .15	Postpaid
25 Bands	.....	.25 Postpaid
50 Bands	.....	.45 Postpaid
100 Bands	.....	.75 Postpaid
500 Bands	.....	3.50 Postpaid
1000 Bands	.....	6.00 Postpaid

MOE'S SELF-LOCKING BAND READY TO BE USED.



FLAT ALUMINUM LEG BANDS

These bands fit any variety of fowls. Price—(12 for 15c) (25 for 30c) (50 for 50c) (100 for 75c, postpaid).

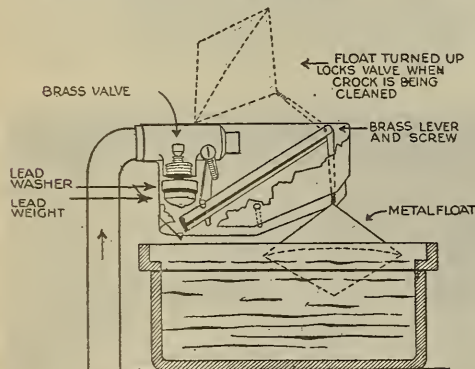
Chick Brander.—An aluminum open band for half-grown birds. They are nicely numbered and made so they can be easily adjusted. Price—(15c doz.) (80c per 100) postpaid.

SMITH SEALED BANDS

SmithSealed Bands were put on the market for a purpose. That purpose was to prevent dishonesty in the handling of scored birds and to protect the purchaser of same. Price—(12 for 25c) (25 for 50c) (50 for 85c) (100 for \$1.50, postpaid).

SPATZ PIGEON BANDS

The Easy-On Color Band.—The new, up-to-date Easy-On Color Band is the simplest, cheapest and easiest to apply band on the market. Made from the best celluloid and aluminum it will give long service. With a little care it can be taken off and used several times. It does not require bending, cement, pliers, or any of the things that take up your time. The Easy-On Band is made in 10 colors as follows: Yellow, Red, Brick, Pink, Light Yellow, Lavender, Blue, White, Cherry, Green. The figures are very large and can be seen many feet away regardless of the way the bird is standing. Bands have black double numbers, and run from 1 to 60. Price—(2c each) (\$1.15 per 100) postpaid.



R.S. POLHEMUS, MFR. BURBANK, CAL.

Water Boy

AUTOMATIC WATER BOY

Water Boy consists of brass valve and stem. No fiber, leather or springs to get out of order. All floats are of metal and will last a long time. Every one guaranteed. Price with metal float, 85c. In one dozen lots 80c ea. f.o.b. Los Angeles. Weight ½ lb.

FEEDING PANS AND DRINKING FOUNTS

Made of heavily galvanized iron. Best of workmanship. Very sanitary and easily cleaned. Chicks cannot get into them or upset them.

1 pt. size, Wt. 1 lb.	.....20c each
1 qt. size, Wt. 1½ lbs.	.....25c each
2 qt. size, Wt. 1½ lbs.	.....35c each
4 qt. size, Wt. 2 lbs.	.....45c each
5 qt. size, Wt. 2½ lbs.	.....55c each

F. O. B. Los Angeles.



FLAT BACK WALL CHICKEN FOUNT

This fount can be used very conveniently for Pigeons, Chickens, Ducks and other poultry. Well made of heavy galvanized iron. To hang on the wall at any convenient height from the ground.

1 qt. size, Weight ½ lb.	.....25c each
2 qt. size, Weight 1 lb.	.....35c each
1 gal. size, Weight 1½ lbs.	.....50c each
2 gal. size, Weight 3 lbs.	.....75c each

F. O. B. Los Angeles.

SANITARY STONE FOUNTS

1 qt. 25c..Wt. 4 lbs.
2 qt. 35c..Wt. 6 lbs.
1 gal. 45c Wt. 7½ lbs.
2 gal. 55c Wt. 9½ lbs.

If ordering by mail or express add 25c for packing charges for one or more founts.

F. O. B. Los Angeles



ALL RIGHT FOUNT

This fountain has just lately been introduced among our poultry breeders and endorsed as the most sanitary and useful of its kind. The cut shows the All Right Fount with grain in it used as an automatic chick feeder or can be used for a drinking fount. It is so arranged that you can use a two-quart Mason fruit jar as a reservoir which gives larger capacity. This fount has a hanger. You could easily afford one for small grains and one for water. This fount is made of the best heavy galvanized iron. We do not furnish the glass jar. Price, packed ready for shipment 20c. Post-

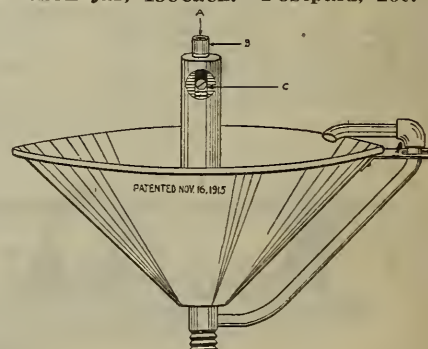
All Right Fount paid, 25c.

This **Star Fount** is made especially for baby chicks. So arranged they can not get into the water. Made of aluminum and will last for years. Best and cheapest fount on the market.

Price, without the Mason jar, 15c each. Postpaid, 20c.

THE AUTOMATIC WATER BOY

This Fountain is funnel shaped and twelve inches in diameter at the top and five inches from the bottom to top of funnel. The funnel is made of heavy galvanized sheet metal, and has a double bottom which acts as a reinforcement. The inner bottom is flat and easily cleaned. It never exposes more than two quarts of water and when some of the water is consumed it will refill and stop automatically when the water reaches its proper level. Every fountain is guaranteed and replaced if found defective in any way. \$1.50 each. Weight 2½ lbs. Three fountains \$4.20, weight 8 lbs. Six fountains \$8.10, weight 20 lbs. Twelve fountains, \$15, weight 40 lbs., f. o. b. Los Angeles.



Thoroughbred Rhode Island Red Eggs, \$1.50 per Setting.



Double Chick Feeder



Single Chick Feeder

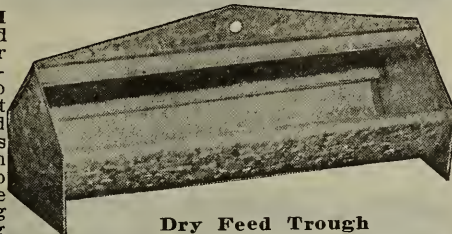
DUCK TROUGHS

The bottom of the trough being round in shape, makes it superior to all others, as it can be easily cleaned and prevents food from becoming stale in corners. The grate slide is a feature not to be found in any other feed trough. Price 10 inch, 40c, weight 2 lbs.; 20 inch 60c, weight 3 lbs., f. o. b. Los Angeles.

DRY FEED TROUGH

This galvanized iron dry mash feeder has no seams or crevices to allow feed to lodge and sour. It is easily washed and kept clean. Fowls can feed on both sides. It has a sharp partition through the center, preventing birds from fouling and getting into the feed.

(18-inch, 2 lbs., 75c) (24-inch, 3 lbs., 85c) f. o. b. Los Angeles.



Dry Feed Trough

ROUND BOTTOM DRY FOOD HOPPER

With two apartments. Will feed dry meal or beef scraps and not clog. Price 75c. Wt. 5 lbs. F. O. B. Los Angeles.



Round Bottom Dry Food Hopper

ROUND BOTTOM SHELL AND GRIT BOX

Made so shell or grit will not clog. Price, 60c, f. o. b. Los Angeles. Weight 4 lbs.



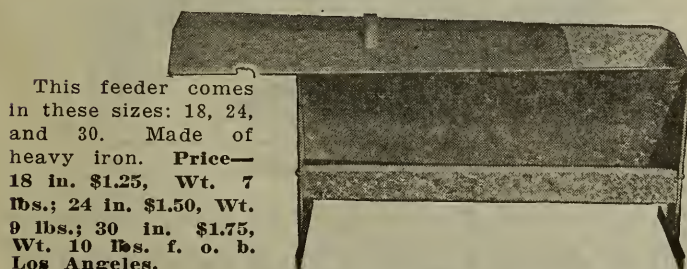
Round Bottom Shell and Grit Box



Round Bottom Dry Mash Hopper is made of heavy galvanized iron 24 inches long and 30 inches high. Has a screen front so the chicks can get the dry mash and not waste. It is the best dry mash feeder on the market. Can be hung on the fence or shed free from dirt and with the covers rain cannot get into the feed.

Price, 18-inch, \$2.00, wt. 8 lbs. 24-inch, \$2.75, wt. 10 lbs., f. o. b. Los Angeles.

Round Bottom Hopper

GREAT WESTERN DRY MASH FEEDER

This feeder comes in these sizes: 18, 24, and 30. Made of heavy iron. Price—18 in. \$1.25, Wt. 7 lbs.; 24 in. \$1.50, Wt. 9 lbs.; 30 in. \$1.75, Wt. 10 lbs. f. o. b. Los Angeles.

Great Western Dry Mash Feeder

Thoroughbred Rhode Island Red Eggs, \$1.50 per Setting.

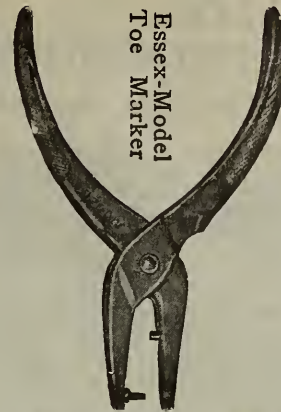
Any of the following articles ordered by Parcel Post add postage.

DOUBLE FEEDERS

12 in. 40c, wt. 1lb. 18 in. 50c, wt. 1½lb. 24 in. 75c, wt. 2lbs.

SINGLE FEEDERS

12 in. 25c, wt. 1lb. 18 in. 35c, wt. 1½lb. 24 in. 50c, wt. 2lbs. F.O.B. Los Angeles



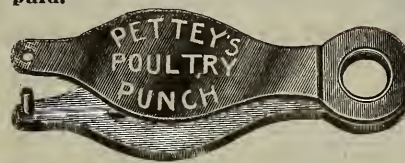
Essex-Model Toe Marker

This marker makes a clean cut and has a separate stop to prevent bruising the web of the foot. 35c postpaid.



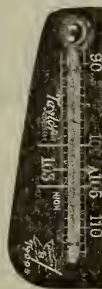
Easy Poultry Punch

Made of brass, so simple in construction any one can use this punch with ease. Price, 25c, postpaid.



Petty's Poultry Punch

One of the most convenient punches made. It is small and easy to operate, cutting a clean hole every time. Price 20c; prepaid 25c.

INCUBATOR AND BROODER THERMOMETERS

No. 2—75c



No. 3—75c

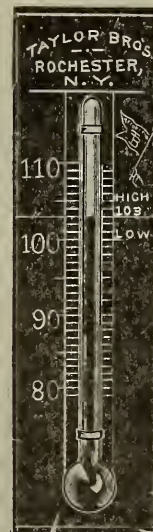


No. 4—85c

Many persons using Incubators and Brooders fail to understand the importance of having a thoroughly tested and reliable thermometer. Many a fine hatch is lost, and many a fine brood of chicks killed by using a poor thermometer. Use great care in purchasing a perfect thermometer. Our thermometers are thoroughly tested and accurate.

Our Brooder Thermometers are in two styles, half round and flat. Made by Tyco's Co. and guaranteed correct. Price of the half round Brooder Thermometer, packed, 75c, postpaid.

No. 1 all glass Incubator Thermometer, Price \$1.00 postpaid.



Flat Brooder Thermometer 35c postpaid



Tyco's Hygrometer

MOISTURE REQUIREMENTS

The amount of moisture required, during the period of incubation, varies from 65 per cent to 53 per cent. For the convenience of our friends and patrons we give the following table of the percentage of moisture best adapted to each week of incubation:

First week there should be about 65 per cent of moisture present;

Second week there should be about 60 per cent of moisture present;

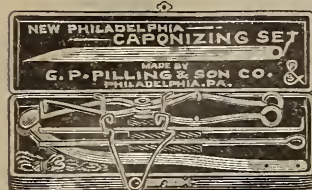
Third week there should be about 55 per cent of moisture present;

At the time of hatching, about 50 per cent of moisture. Price, \$1.50, postpaid.



No. 1

POULTRY INSTRUMENTS



New Philadelphia Caponizing Set

This set is one of the latest design. It is a combination of tools that can be used with one hand and seldom causes the operator to slip and cause the loss of the bird. Price, complete in case, \$3.00, prepaid.

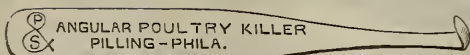
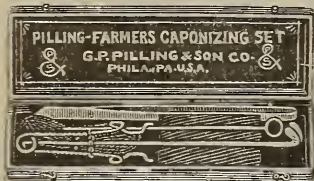
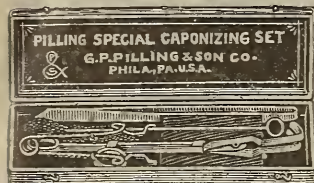
The Pilling Special Caponizing Set

Price, complete in oak case, prepaid, \$4.00.

This set contains the latest patented extractor. The operation can be easily done by any beginner, without much loss. Complete instructions with each set.

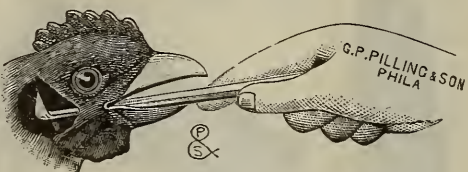
Pilling's Farmers' Caponizing Set

Packed in fine black case. Complete set \$2.50, prepaid.



Pilling Angular Killing Knife

By simply turning the wrist the jugular vein and spinal cord are cut, thereby bleeding the fowl, allowing the feathers to be removed without using water. 50c, postpaid.



Showing Angular Killing Knife

Pilling French Poultry Killing Knife

Every poultry raiser should have one of our Killing Knives. They are made of a finely tempered instrument steel with nicked handle; will last a lifetime. Sent postpaid on receipt of 50 cents. Don't wait! Send for one now! Sent securely packed by mail on receipt of price.



METAL NEST

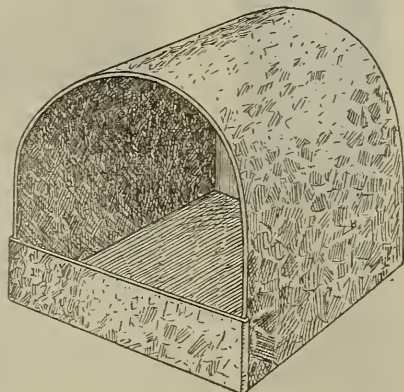
Single \$1.00; 2 compartment, \$1.50 Wt. 7 lbs.; 3 compartment \$1.75, Wt. 9 lbs. F. O. B. Los Angeles.

Thoroughbred Rhode Island Red Eggs, \$1.50 per Setting.

COVERED TOP METAL NEST

Made single only. Best of iron. \$1.00 each. Wt. 5 lbs., f. o. b. Los Angeles. Add postage, etc.

Any of the following articles ordered by Parcel Post add postage.



Thoroughbred Rhode Island Red Eggs, \$1.50 per Setting.



Rabbit Fount

RABBIT SUPPLIES

Rabbit Feeder. Made of best galvanized iron, three or more compartments, can be hung on the hutches and will not turn over.

(12 in. 30c) (Wt. 1 lb.) F. O. B. here.
(15 in. 35c) (Wt. 1½ lbs.) F. O. B. here.
(18 in. 40c) (Wt. 1½ lbs.) F. O. B. here.

Rabbit Fount. Made of galvanized iron, can be hung on hutches. Price 50c each, wt. 4 lbs.



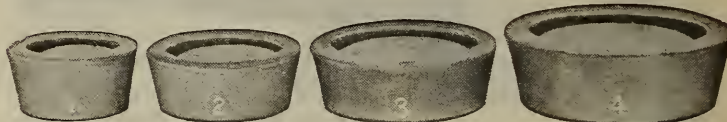
Rabbit Compartment Wall Pans

WALL PANS

Used for all kinds of grain, cannot waste the feed. Price, (15 in. 3 compartment, 35c). Wt. 1 lb. F. O. B. here.

(18 in. 4 compartment, 40c). Wt. 1½ lbs. F. O. B. here.

Flanged Edge Feeders. These are made of stoneware and glazed with a flanged edge for feeding rolled barley. The flanged edge prevents rabbit from throwing out the grain and wasting it. Comes in two colors, brown and white, glazed. State color wanted.



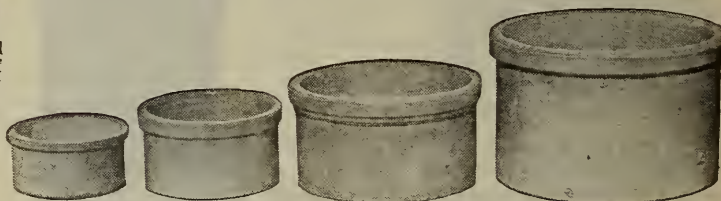
Rabbit Feeders

No. 1, 10c each, 3 for 25c, 1 dozen, 90c... Weight 1 lb. (each)
No. 2, 10c each, 1 dozen, \$1.00... Weight 2 lbs. (each)
No. 3, 15c each, 1 dozen, \$1.50... Weight 2½ lbs. (each)
No. 4, 20c each, 1 dozen, \$1.75... Weight 4 lbs. (each)

If ordering by mail or express add 25c to order for packing, etc.

RABBIT DRINKING FOUNTAIN

These fountains are made especially strong and durable for rabbits. The wide bottom prevents them turning over. Not broken easily.



Rabbit Drinking Fountains

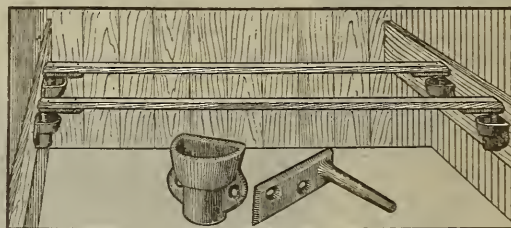
1 pt. 10c each, 3 for 25c; per dozen, 90c... Weight, 1 lb. each
1 qt. 10c each; per dozen \$1.00... Weight 2 lbs. each
½ gallon, 15c each; per dozen, \$1.50... Weight 4 lbs. each
1 gallon, 25c each; per dozen, \$2.75... Weight 4½ lbs. each
F. O. B. Los Angeles

If ordering by Mail or Express add 25c to order for Packing.

ESSEX ROOST HANGER

Heavy iron bracket. Has deep trough to hold lice spray. 4 in. long, ½ in. wide, ½ in. deep.

Price per pair, 40c. Wt. 1½ lbs. F. O. B. Los Angeles.



A. & M. Roost Hanger

New invention. Fasten in wood as shown in cut. Fill cups with lice killer. Best Roost Hanger on the market. Price per pair, 25c; postpaid, 35c. Price per dozen pairs, \$2.75. F. O. B. Los Angeles. Weight 15 lbs. per dozen pairs.

Thoroughbred Rhode Island Red Eggs, \$1.50 per Setting.

We can
supply the
Large and
Small
Poultry
Rancher
in all kinds
of Soft Feed
and Grains.



We can
Supply the
Farmer and
Rancher
in all
kind of
Feed Grain
and Seeds

A & M Chick Feed

As our trade has often called for a clean, fine mixture, we have installed special machinery this season to manufacture a special chick feed to please our customers. This feed is composed of Kaffir Corn, Egyptian Corn, Cracked Wheat, Millet and other grains and seeds that have been thoroughly cleaned, free from dust and is as fine a chick feed as ever came on the market. We have customers who will use no other feed on account of being free from foul, musty seeds. You make no mistake in buying the Superior Brand. Price, \$3.50 per 100 lbs.

Growing Chick Food

No. 2—Growing Chick Food—In feeding any animal or fowl for growth knowledge and experience teaches us to avoid corn and fattening foods and to grow the frame and flesh first. When this has reached the stage we desire, we reverse the order. Our No. 2 has no equal for that purpose. It simply does what it is intended for, and nothing else. It supplies every requirement and health and growth must follow. The rapid growth resulting from the use of No. 2 will be a revelation to many who now know but little of the possibilities attainable in growing broilers. It enables late hatched chicks to be matured for winter layers as well as making earlier spring broilers in the shortest possible time. Feed as a mash in a moist, crumbly state, the first meal at daybreak, and every three hours until dark, giving them only what they will clean up at a feeding. Green food of some kind must be supplied daily as well as grit and water.

Continue feeding No. 2 until they are four or five months old, or about matured. Price \$2.50 per sack.

Egg and Feather Producing Food

No. 4—Egg and Feather Producing Food—This is the great egg and feather producing food. It has no rival today and we know of nothing that approaches it. It takes certain material to make eggs, as it takes clay to make bricks; sand won't do it. A trial of this food will fully convince you that the egg production can be controlled to a remarkable degree when intelligent methods and correct principles are employed. This brand will also fit birds for exhibition safely and quickly, sending them in at standard weight and in beautiful feather. There is nothing on the market that can be compared to it. Feed as a mash, moist, crumbly. Add clover meal or steamed, cut clover, or supply the necessary green food in some form daily; add nothing else. Feed morning and night and if the fowls are confined, scatter small grain of any kind in the litter at noon to induce exercise in scratching for it. Price \$2.25 per sack.

A & M Superior Scratch Food

This food consists of several different varieties of grain, viz.: Wheat, Kaffir Corn, Egyptian Corn, Sunflower, Beef Scraps and other seeds that have been thoroughly cleaned and free from dust and dirt. Your fowls will enjoy it and give you the best of results. Put up in 100 lbs. sack; free from grit. Grain fluctuating. We quote on application.

Superior Rolled Barley

Our Superior Rolled Barley is made from fine new grain. With our new roller plant installed this season we are in position to turn out the finest grade of Rolled Barley made anywhere. Having our own plant we manufacture fresh every day.

We also manufacture the finest cracked wheat, cracked corn, cracked Kaffir and all other grains. Should anyone wish to manufacture their own chick feed, we are prepared to furnish them anything they may need in the grain and seed line.

Grain fluctuation. We quote on application.

Alfalfa Meal

Green food is absolutely necessary for poultry. No one can afford to be without it. Fed with soft feeds and beef scraps makes a great egg food. Price, 10-lb. bag, 25c.

Armour Beef Scraps, Granulated, all sizes, \$3.25 per 100 lbs.

Swift's Beef Scraps—These scraps are guaranteed to be of pure meat and blood, inspected by the Government and perfectly free from scavenger product. Price, 100-lb. sack, \$3.50.

A. & M. Blue Ribbon Meat Scraps—These scraps are manufactured in Los Angeles. Have been carefully inspected and free from all foul meat and blood. They are made in granulated form, coarse, medium and fine. Price, per 100 lbs., \$3.25.

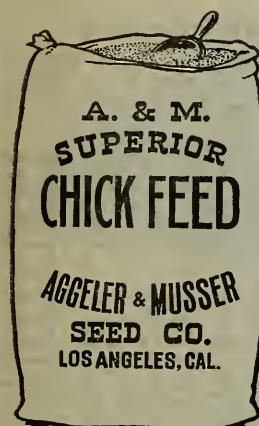
A. & M. Superior Fish Meal—Our fish meal is made from clean fresh fish, cooked, dried and ground. Especially prepared for fowls. Among our leading poultrymen it is considered a great egg producer. Price \$3.25 per 100 lbs.

We carry a full line of the following, and will quote prices on application.

Kaffir Corn
Egyptian Corn
Whole Yellow Corn
Cracked Corn
Milo Maize
Feeding Oats
Oat Meal
Oats, Rolled
Oats, Ground
Bran, Heavy

Bran, Light
Cracked Wheat
Cracked Kaffir Corn
Cracked Milo Maize
Oyster Shell
Clam Shell
Chicken Chilli
Grit
Charcoal
Wheat

All prices of chick feed, scratch feed, wheat, and grains subject to market changes without notice. Write for quotations.





POULTRY OR STOCK SUPPLIES

A. & M. Roupozone, per bottle.....25c and 50c, cannot mail
 A. & M. Rouse Powder, per box.....25c and 50c, postpaid
 A. & M. Cholera Cure, per box.....50c and \$1.00, postpaid
 A. & M. Rouse Tablets, per box.....50c, postpaid
 A. & M. Lice Powder...1½ lb. box, 25c; 50 oz. box, 50c.
 A. & M. Liquid Lice Killer...1 qt. 2 lbs., 35c; ½ gal. 4lbs., 60c;
 1 gal. 8 lbs., \$1.00. F. O. B. Los Angeles. Cannot mail.
 Church's Rouse Cure, per bottle....25c and 50c, cannot mail
 Hess & Clark's Panacea, per box 1½ lbs., 25c; 3 lb. box 50c;
 7½ lbs., \$1.00.
 Hess & Clark's Stock Food, 2 lb. box, 25c; 3½ lb. box 50c;
 7 lb. box \$1.00.
 Hess & Clark's Dip Disinfectant, 1 bottle 1 lb. 35c, cannot
 mail. 1 qt. 3 lbs., 50c; ½ gal. 5 lbs. 75c; 1 gal. 10 lbs., \$1.00.
 F. O. B. here.
 Pratt's Poultry Regulator, 26 oz. 25c; 4 lb. box, 50c; 8 lb.
 box \$1.00; 12 lb. pail \$1.25. F. O. B. here.
 Pratt's Animal Regulator, 26 oz. 25c; 4 lb. box 50c; 8 lb. box
 \$1.00; 12 lb. pail \$1.25. F. O. B. here.
 Pratt's Chick Food, per box 3 lbs. 25; 6 lb. box 50c. F. O. B.
 Pratt's Worm Powder, per box50c, postpaid
 International Poultry Food, 1½ lbs. 25c; 3½ lbs. 50c; 7 lb. box
 \$1.00. F. O. B. here.
 International Stock Food, 2 lbs. 25c; 3½ lbs. 50c; 7 lb. box
 \$1.00. F. O. B. here.
 Sterlingsworth Flea Killer, wood case, per box, 50c, postpaid
 Sterlingsworth Diarrhoea Remedy, wood case, per box, 50c,
 postpaid.
 Sterlingsworth Sulphur Candles, per tin case....15c, postpaid
 Sterlingsworth Bird Tonic, per bottle.....25c, cannot mail
 Sterlingsworth Song Restorer, per wood case,20c
 Bitter Lick, per brick,25c, F. O. B. here
 Bitter Lick Holders15c, F. O. B. here
 Bird Seed Mixture, per box15c, F. O. B. here

STAITE'S LICE KILLER FOOD

This name and
 Signature mean
DOLLARS TO YOU



**STAITE'S
 LICE
 KILLER
 FOOD**

none genuine without
 this Signature:—

B. M. Stait

What It Is—A powder composed of seven ingredients. The results of years of experiments. Each separate ingredient has been added from time to time and for a specific purpose and in the resultant compound is a perfect lice killer with nothing harmful, and no waste.

What It Will Do—The component parts have each its particular work to perform: Nos. 1 and 2 pass through the body and out of the pores of the skin, killing all vermin that feed upon the blood or excretion of the pores. No. 3 keeps the bowels in good condition. No. 4 purifies the blood. No. 5 acts as a tonic. No. 6 is a germicide and prevents disease, and No. 7 is a slight stimulant and increases the egg yield.

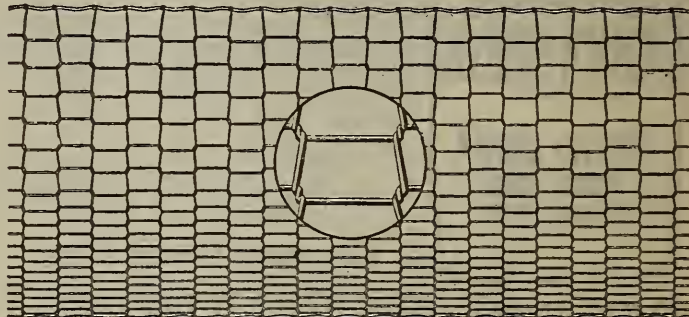
There is absolutely nothing poisonous, except to vermin, in this preparation and it may be fed with impunity, producing only beneficial results. It does not affect the flesh or the egg, but on the other hand it greatly improves the condition of the flock in every way and some of the improvements noted are: Sprightliness and

activity, larger egg yield, increased fertility and absolute freedom from vermin. Price List

F. O. B. Here. If ordered by Parcel Post add Postage.
 Staite's Lice Killer Food.....1½ lb. Pkg. \$.25
 Staite's Lice Killer Food.....2½ lb. Pkg. .50
 Staite's Lice Killer Food6 lb. Pkg. 1.00
 Staite's Lice Killer Food25 lb. Pail 3.50

Warner Junior Poultry Fencing

Warner Junior Poultry Fence is made of No. 18 galvanized wire with No. 14 wire top and bottom, stay wires placed 4½ inches apart. At the bottom of the fence mesh is 1½ inch and gradually widens as the top is reached.



THE WARNER JUNIOR POULTRY FENCE

Put up in 10 rod rolls.

3 ft. wide, per roll.....	\$4.75
4 ft. wide, per roll.....	5.25
5 ft. wide, per roll.....	6.15
6 ft. wide, per roll.....	6.90

Subject to market fluctuations.

Jersey Poultry Fencing

This wire is made of the full 20 gauge hand drawn steel wire galvanized after weaving. Each roll contains 150 running feet.



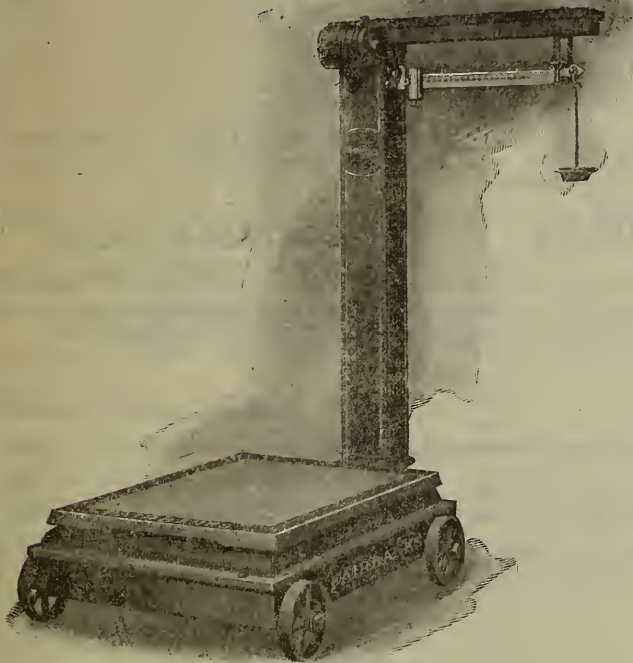
Per roll		Per roll	
1	ft. 2 inch mesh.....\$1.25	1	ft. 1 inch mesh.....\$3.15
1½	ft. 2 inch mesh.....1.90	1½	ft. 1 inch mesh.....4.75
2	ft. 2 inch mesh.....2.50	2	ft. 1 inch mesh.....6.30
3	ft. 2 inch mesh.....3.50	3	ft. 1 inch mesh.....9.45
4	ft. 2 inch mesh.....5.10	4	ft. 1 inch mesh.....12.60
5	ft. 2 inch mesh.....6.35	5	ft. 1 inch mesh.....15.75
6	ft. 2 inch mesh.....7.65	6	ft. 1 inch mesh.....18.90

On account of great changes in steel goods, all wire prices are subject to market fluctuation.

The Genuine Fairbanks Scales

Capacity 500 lbs., Platform 16 in. x 22 in., shipping weight, 170 lbs. **Price \$14.60.**

Capacity 1000 lbs., Platform 18 in. x 27 in., shipping weight, 190 lbs. **Price \$17.20.**



FAIRBANKS UNION COUNTER SCALE

Capacity 240 lbs., by $\frac{1}{2}$ oz., shipping weight, 56 lbs. **Price \$9.25.**

All Fairbanks scales guaranteed to pass inspection. Instructions for setting up in box.

Devonshire's Earth Salts

Especially for Poultry, Rabbits, Cattle and Horses

Major Devonshire pointed out in 1905 that it would be necessary to artificially manufacture and supply the Earth Salts to domestic stock, poultry and dogs kept in confinement or on limited range, and the formula, on which Devonshire's Earth Salts are based, is the work of a leading American Chemist.

The consistently favorable reports, during the past eight years, of Agricultural Chemists, Veterinarians and Stock and Poultry Experts, in many parts of the world, as to the unique value of these Earth Salts, have established Devonshire's Earth Salts as a great discovery in Agricultural Science.

Some Diseases Caused by a Shortage of Earth Salts, Available to Stock and Poultry.

(1) **Horses, Cattle, Pigs, Sheep and Dogs.** Debility, abortion, sterility, mange, insufficient or worthless milk to suckle the offspring, milk fever, etc.

(2) **Poultry.** Poor egg yield, dead-in-shell chicks, weakling chicks, infertile eggs, sterility in male birds, poor feathering, leg weakness, debility, leading to the attacks of lice, roup, diphtheria, catarrh, diarrhoea and other diseases, which are always preceded by a debilitated condition, due to a shortage of Earth Salts, if the management is in other respects rational.

Summary. If the germicide (or killers of disease germs which settle in the blood) are healthy, disease is impossible. Earth Salts, as combined in Devonshire's Earth Salts, enable these germicides to functionate efficiently, and are therefore the elixir vitae—the most vitally important factor in the feeding of stock and poultry in confinement.

One tablespoonful per day for twenty fowls is about the right proportion. Instructions for feeding are printed on every package. We also have pamphlets with full information for the asking.

Dogs. A convenient way to feed a dog is to put $\frac{1}{2}$ teaspoonful of the Earth Salts daily in the feed. Where puppies at weaning time feed out of one dish, a $\frac{1}{2}$ teaspoonful in the food in the dish will be about right. The Earth Salts are quite harmless, but if too much is given, the dogs may refuse the food.

Rabbits. Cures Slobbers, Snuffles, Mange, Ear Canker, all digestive disturbances, refusal to eat, Abscesses and difficulty in moulting.

Devonshire Earth Salts for stock and poultry are put up in packages of three sizes.

Devonshire's Earth Salts increase the milk yield of cows.

Devonshire's Earth Salts are assimilated by all living things in the same way as the natural salts in the foods.

Devonshire's Earth Salts. Tuberculosis is due to a shortage of the earth salts in the body.

Price, 1-lb. packages, postpaid 60c.

Price, 2½-lb. packages, \$1.15, postpaid.

Price, 10-lb. packages, \$3.00, f. o. b. Los Angeles.

Price, 25-lb. sacks \$7.00, 50-lb. sacks \$13.50, 100-lb. sacks \$26.00, f. o. b. Los Angeles.

WHY DEVONSHIRE EARTH SALTS FOR HUMAN USE?
Because They Supply the Shortage in Your Food

The majority of soils are deficient in mineral matter and therefore the plants and grains grown therein are also deficient and we humans who live on these plants and grains will sooner or later suffer from this shortage and disease will follow. As far as the average person is concerned, all the diseases from which he or she suffers are due to shortage of the earth salts in the food over a more or less prolonged period of time. **Devonshire's Earth Salts for human use are the only known means of supplying this shortage. They prevent and cure disease.**

Tuberculosis—On August 4th last, Major Devonshire set out in a letter to the Times of Los Angeles that Tuberculosis in mankind is due to starvation of the earth salts in the body and that **Devonshire's Earth Salts** would prevent tuberculosis absolutely and cure it except perhaps where the disease was in the last stages. The accuracy of this diagnosis has never been disputed by any medical or other expert.

Rheumatism is due to an excess of acids in the body. **Devonshire's Earth Salts** alone enable nature to absorb these acids and invariably cure this disease.

Dyspepsia and all forms of Nervous Disease—The Earth Salts alone create the gastric juice and nourish the nervous system.

Liver and Kidney Troubles, etc., are also due to a lack of the earth salts.

Children. The Rising Generation. Invaluable to promote the healthy growth of children after weaning and during the teething period.

Devonshire Earth Salts are a food and not a medicine. Are absolutely harmless, being a copy of the natural salts found in all foods. Sold in packages for human use. **Price in powder form, postpaid 85c; in boxes with 120 capsules, postpaid \$1.10.**

We have handled **Devonshire's Earth Salts** for the past two years, both for Stock and Human food, and it not only has given general satisfaction, but we have many testimonials of remarkable cures to human beings resulting from its use. Therefore we do not hesitate to recommend it.

AGGELER & MUSSER SEED CO.

Read This!

We have endeavored to make of this catalog a guide to the amateur, a help to the newcomer, and a manual for the school children (see pages 13 to 16).

The market gardener will find many valuable hints on pages 3 to 8, also 14 and 15.

The home gardener and the housewife will find some suggestions on pages 9, 10 and 11.

The amateur bean grower should read pages 23 and 24.

Read the foot-notes throughout the book. You will find much of interest to you.

When you wish information on any particular subject in this book, consult the index to locate the subject.

When you wish information on any particular subject in this book and cannot find it, write us about it.

When advice is wanted, write us telling the nature of your soil, foothill or mesa, water for irrigation or none, number of acres you intend to plant, and your facilities for marketing. With this information we can more intelligently answer your questions.

Do not fail to see the new grapes offered on page 88.

The seeds we offer are the best obtainable. We take every precaution possible to make them reliable, true to name, and of A 1 germination.

Our facilities for cleaning seeds are the best obtainable; if you get unclean seed, complain to us about it.

When you have a complaint to make, tell us about it at once.

When you are pleased, tell your neighbors.

When you can pass us a compliment, we will be pleased to get it.

When you have extraordinary success, tell us about it. We are pleased to tell other readers of this catalog.

Be sure to keep this catalog. It is just possible that the advance in cost of paper and cuts may make it impractical to publish a catalog next year.

INDEX

Do not fail to read pages 2 to 15.

BOOKS, For Agriculture and Poultry, Page 14

CLOVERS, Pages 65, 66, 72.

	Page		Page
Alfalfa	66	Melilotus Indica	65
Alsike	66	Red Clover	66
Melilotus Alba	65	White Clover	72

GARDEN HOSE AND SPRINKLERS, Page 92.

GARDEN TOOLS

	Page
Bacon Hand Drill	99
Columbia Planters	99
Iron Age Tools	99
Norcross Cultivators and Hoes	95
Planet Junior Tools	98

GRAIN AND FIELD SEEDS

Read article on Commercial Beans, pages 23, 24.

Artichoke	16
Barley	69
Beans	23, 24
Broom Corn	71
Buckwheat	69
Canary	71
Cane, Amber	68
Cane, Ribbon	68
Corn, Field	70
Corn, Pop	70
Cotton	71
Egyptian Corn	68
Egyptian Wheat	68
Feterita	68
Flax	69
Hemp	71
Kaffir Corn	68
Millet	69
Milo Maize	68
Oats	69
Rape	71
Rice	69
Rye	69
Sorghum	68
Speltz	69
Sunflower	71
Wheat	69

GRASSES

Alfileria	67
Australian Rye Grass	66
Bermuda Grass	66
Korean Velvet Grass	72
Lawn Grass	72
Natal Grass	67
Orchard Grass	67
Parra Grass	67
Paspalum	66
Rhodes Grass	66
Salt Bush	67
Sudan Grass	67
Timothy	66

INSECTICIDES, Page 91.

Read page 13.

LAWN MOWERS, Page 92.

NURSERY REQUISITES

Pages 92, 93, 94

PLANT DEPARTMENT

Berries	88, 89
Bulbs	10
Feijoa Sellowiana	89
Fruit Trees	90
Geraniums	10
Grapes	88
Passiflora Edulis	88
Passion Vine, Pumpkin Fruited	88
Rhubarb	57
Vegetable plants	16

TREE SEEDS, Page 73.

FERTILIZERS

	Page
Chemical, for Field, Garden and Lawn	64, 93
Ferguson's Nitrogen-Fixing Bacteria	64
Gaviota	93
Cover Crops—	
Canadian Peas, Vetch, Soja Beans	65
Melilotus Indica, Melilotus Alba	65

FLOWER SEEDS

Pages 9, 10, also 74 to 87. See planting calendar inside back cover page.

POULTRY SUPPLIES

	Page
Alfalfa Meal	109
Beef Scraps	109
Bird Seed	110
Bird Tonic	110
Bitter Lick	110
Bone Cutters	103
Brooder Heaters	102
Brooder Parts	104
Brooders	101, 102
Caponizing Sets	108
Chicken Coop, Wire Shipping	105
Chick Feed	109
Cholera Cure	110
Clover Cutters	104
Devonshire's Earth Salts	111
Diarrhoea Remedy	110
Drinking Founts	106
Egg Boxes	105
Egg Carriers	105
Egg Scale	105
Feed Cutters	104
Feeding Pans	106, 107
Feed Troughs	107
Fish Meal	109
Flea Killer	110
Food Hoppers	107
Founts	106
Grinding Mills	103
Grist Mill (Black Hawk)	95
Hovers	102
Hygrometers	107
Incubator Parts	100, 101
Incubators	104
Killing Knives	108
Leg Bands	106
Lice and Mite Killers	110
Midland Poultry Feed	109
Nest Eggs	105
Nests	108
Poultry Punches	107
Rabbit Supplies	108
Roost Hangers	108
Roup Cure	110
Scratch Feed	109
Song Restorer	110
Sulphur Candles	110
Thermometers	107
Toe Markers	107
Water Boy, Automatic	106
Water Founts	106
Wire, Poultry Fencing	110
Worm Powder	110

RANCH AND ORCHARD REQUISITES

Fruit Picker	93
Planters and Seeders	95
Powder Blowers	94
Scales (Fairbanks)	111
Sprayers	96, 97
Sulphur Dusters	94
Transplanters, Tree	93
Tree Protectors	94
Tree Supports	93

SQUIRREL AND GOPHER TRAPS, Page 94.

VEGETABLE SEEDS

Read page 14, "How to make a Hot-bed."

See Vegetable Garden Calendar, Page 15, and inside back cover page.

Read page 11, Home Vegetable Garden.

	Page
Artichoke, French	16
Artichoke, Jerusalem	16
Asparagus	17
Beans	3, also 17 to 24
Beets	25, 26
Broccoli	27
Brussels Sprouts	27
Cabbage	27, 28
Cabbage, Chinese	4, 27
Carrots	30
Casaba	5, also 39 to 41
Cauliflower	3, 29
Celeriac	31
Celery	31
Chard, Swiss	26
Chayote	33
Chicory	36
Collards	36
Corn Salad	36
Corn, Sweet	4, 32, 33
Cress	36
Cucumbers	34, 35
Dandelion	36
Egg Plant	26
Endive	37
Garlic	48
Gourds	37
Herbs	36, 37
Horse Radish	57
Kale	37
Kohl Rabi	37
Leek	37
Lettuce	4, 38
Melons, Armenian	39
Melons, Casaba	5, 39, 40, 41
Melons, Muskmelon	42, 43
Melons, Watermelons	43, 44, 45
Mushrooms	46
Mustard	45
Okra	49
Onions	46, 47, 48
Parsley	49
Parsnip	49
Peanuts	49
Peas	50, 51
Peppers	6, 52, 53
Potatoes	6, 54
Pumpkins	55
Radish	56
Rhubarb	57
Roselle	57
Salsify	58
Sorrel	58
Spinach	59
Squash	58, 59
Sweet Potatoes	54
Tomatoes	7, 60, 61
Turnip	62

See Tables, Pages 15, 62.

The AGGELER & MUSSER SEED CO. Inc.
Corner 6th and Alameda Sts., Los Angeles, Cal., U.S.A.

Please forward the following **ORDER** for amount enclosed (write your name and address distinctly)

Name

Street P. O. Box

Post Office R. F. D. No.....

County State.....

Forward Goods by

State whether by **Mail**, **Express** (and company),
Freight (and route), **Steamer** (and line).

Name of Station or Exp. Office.....

Amount Enclosed

P. O. Money Order

Exp. Money Order.....

Draft

Cash

Stamps,

Total

Date, 191.....

NOTICE—We give no warranty, express or implied, as to description, quality, productiveness or any other matter of any seeds or bulbs we send out and we will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are to be returned at once. Aggeler & Musser Seed Co. (Inc.).

[illegible]

(OVER)

EXTRA ORDER SHEETS AND RETURN ENVELOPES FURNISHED ON REQUEST

NAME OF ARTICLE WANTED

Brought forward

POSTAGE

Garden Seeds priced by the packet, ounce, one-fourth pound and pound are postage paid. Peas, Beans, Onion Sets, Corn, Grass and Field Seeds and Sundry Articles are not postpaid. In ordering one pound lot, add ten cents per pound for postage and packing, and on larger quantities apply parcel post charges.

DOMESTIC PARCEL POST RATES

On Seeds, Plants, Bulbs, Roots, Books, Tools, etc.
within the U. S. and Possessions

	First pound or fraction	Each additional pound or fraction
First Zone, Los Angeles or 50 miles thereof	5c	1c
Second Zone, within 50 to 150 miles	5c	1c
Third Zone, within 150 to 300 miles	6c	2c
Fourth Zone, within 300 to 600 miles	7c	4c
Fifth Zone, within 600 to 1000 miles	8c	6c
Sixth Zone, within 1000 to 1400 miles	9c	8c
Seventh Zone, within 1400 to 1800 miles	11c	10c
Eighth Zone, all over 1800 miles	12c	12c

Please do not ask questions on this Order Sheet, but kindly write them and all communications requiring an answer on a separate sheet of paper and inclose with your order. Be sure that your Full Name and Address are on Both Letter and Order.

This space is for remarks about your order.

The following is a calendar for the general planting of vegetables, but, owing to the various soils and climatic conditions, this calendar cannot be applied to every locality, even in Southern California, for which this calendar is intended

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	OCTOBER	NOVEMBER	DECEMBER
Asparagus *Beans Beets Brussels Sprouts Cabbage Celery Carrots Chervil Chicory Corn Salad Cress *Egg Plant Horse Radish Kale Kohl Rabi Lettuce Mustard Onions Parsley Peas *Peppers *Potatoes Rhubarb Salsify Spinach *Winter *Tomato Turnip	Asparagus Beets *Beans Cabbage Carrots Celery Chervil Chicory Corn Cress Corn Salad *Cucumbers *Egg Plant Horse Radish Kale Kohl Rabi Lettuce Mustard Onions Parsley Peas *Peppers *Potatoes Rhubarb Salsify Spinach *Summer *Tomato Turnips	Artichoke Asparagus Beets Beans Cabbage Carrots Chicory Chervil Corn, Sweet Cucumbers *Egg Plant Kale Lettuce Melons, Musk Okra *Onions Parsley Parsnip Potatoes Sweet *Tomatoes Turnips	Artichoke, * Seed Asparagus Beets Beans Cabbage Carrots Cabbage Carrots Celery Chicory Chives Corn, Sweet Corn, Sweet Field Cress Cucumber *Egg Plant Kale Lettuce Melons, Musk Okra *Onions Parsley Parsnip Potatoes Sweet *Tomatoes Turnips	Artichoke, Seed Asparagus, Seed Beets Beans Cabbage Cabbage Carrots Celery Chicory Chives Corn, Sweet Corn, Sweet Field Cucumber *Egg Plant Kale Lettuce Melons, Musk Okra *Onions Parsley Parsnip Pepper Plants Potatoes Potatoes Sweet *Tomatoes Turnips	Artichoke, Seed Beets Beans Cabbage Carrots Cauliflower Celery, Cucumbers *Egg Plant Kale Kohl Rabi Leek Lettuce Melons, Casabas Okra Onion Sets Parsley Parsnip *Peas *Peppers Potatoes Pumpkin Radish Spinach, Summer Squash *Tomatoes	Artichoke, Seed Beets Beans, Early Brussels Cauliflower Brussels Sprouts Cabbage Cauliflower Carrots Chervil Chives Chicory Cress *Cucumber *Egg Plant Kale Kohl Rabi Lettuce Melons, Okra Onion Parsley Parsnip *Peas *Peppers Pumpkin Radish Spinach, Summer Squash *Tomatoes Turnip	Artichoke Beets *Beans Brussels Sprouts Cabbage Carrots Cauliflower Chervil Chicory Chives Chicory Cress *Egg Plant Kale Kohl Rabi Lettuce Mustard Onion Parsley Peas *Peppers Pumpkin Radish Spinach Turnip	Beets *Beans Brussels Sprouts Cabbage Carrots Cauliflower Chervil Chicory Chives Cress *Egg Plant Kale Kohl Rabi Lettuce Mustard Onion Parsley Peas *Peppers Pumpkin Radish Spinach Turnip	Beets *Beans Brussels Sprouts Cabbage Carrots Cauliflower Chervil Chicory Chives Cress *Egg Plant Kale Kohl Rabi Lettuce Mustard Onion Parsley Peas *Peppers Pumpkin Radish Spinach Turnip	Artichoke, Plants Asparagus, Roots Beets *Beans Brussels Cauliflower Cauliflower Sprouts Chicory Chives Chicory Cress *Egg Plant Kale Kohl Rabi Lettuce Mustard Horse Radish Kale Kohl Rabi Leek Lettuce Mustard Onion Parsley Peas *Peppers Pumpkin Radish Spinach, Winter *Tomato Turnip	

*Plant in frostless sections only
†Plant seed in hot bed.
‡Plant both seed and plants

§Plant in low, heavy land.
¶In the Colorado Desert.

Calendar for Planting Flowers

JANUARY Sow Seed	FEBRUARY Sow Seed	MARCH Sow Seed	APRIL Sow Seed	MAY Sow Seed	JUNE Sow Seed
Antirrhinum Centaurea Calliopsis Celosia Chrysanthemum Salvia Sweet Peas Transplant Carnation Petunia Pansy Stocks Shasta Daisy Verbena Bulbs Anemones Cannas Callas Dahlia Easter Lilies Gladiolus Narcissus Ranunculus	Antirrhinum Asters Calliopsis Celosia Chrysanthemum Salvia Sweet Peas Transplant Carnation Petunia Pansy Stocks Shasta Daisy Verbena Bulbs Callas Cannas Dahlia Gladiolus Tuberoses	Asters Balsam Centaurea Dianthus Marigold Nasturtium Snap-Dragon Sweet Peas Zinnia Transplant Asters Celosia Centaurea Calliopsis Salvia Shasta Daisy Verbena Bulbs Callas Cannas Dahlias Gladiolus Tuberoses	Ageratum Balsam Cosmos Centaurea Coreopsis Candytuft Daisies Nasturtium Poppies Snap-Dragon Zinnia Transplant Asters Antirrhinum Centaurea Calliopsis Chrysanthemum Celosia Salvia Bulbs Amaryllis Cannas Dahlia Gladiolus Tuberoses	Carnation Cosmos Coreopsis Candytuft Centaurea Daisies Digitalis Forget-me-not Gillardia Marigold Nasturtium Phlox Petunia Poppies Salpiglossis Scabiosa Transplant Asters Antirrhinum Balsam Centaurea Dianthus Marigold Snap-Dragon Zinnia Bulbs Amaryllis Cannas Dahlia Gladiolus Tuberoses	Carnation Cosmos Coreopsis Candytuft Cineraria Centaurea Digitalis Daisies Forget-me-not Gillardia Marigold Nasturtium Phlox Petunia Poppies Salpiglossis Transplant Ageratum Balsam Carnation Cosmos Centaurea Coreopsis Candytuft Celosia Daisies Hollyhock Snap-Dragon Violets Zinnia Bulbs Cannas Gladiolus
JULY Sow Seed	AUGUST Sow Seed	SEPTEMBER Sow Seed	OCTOBER Sow Seed	NOVEMBER Sow Seed	DECEMBER Sow Seed
Antirrhinum Canterbury Bells Centaurea Cosmos Lobelia Pansies Stocks Transplant Carnation Cosmos Coreopsis Candytuft Centaurea Daisies Digitalis Forget-me-not Gillardia Marigold Phlox Petunia Salpiglossis Scabiosa Violets	Columbine Calendula Canterbury Bells Cosmos Lobelia Pansies Pinks Primula Petunia Verbena Transplant Carnation Cosmos Coreopsis Candytuft Cineraria Centaurea Digitalis Daisies Gillardia Marigold Phlox Petunia Salpiglossis Violets	Carnation Columbine Calendula Candytuft Forget-me-not Pansies Stocks Sweet Peas, Xmas. Transplant Antirrhinum Canterbury Bells Centaurea Cosmos Lobelia Pansies Stocks Violets Bulbs Callas Freesias Iris Climbing Vines Australian Pea Vine Cobea Scandens Kudzu Vine Moon Flower Morning Glory Passion Flower Smilax Virginia Creeper	Coreopsis Centaurea Cineraria Forget-me-not Larkspur Pansies Stocks Sweet Peas Transplant Cineraria Columbine Calendula Lobelia Pansy Pinks Primula Petunia Verbena Bulbs Anemones Callas Easter Lilies Freesias Hyacinths Iris Narcissus Ranunculus Tulip	Carnation Centaurea Larkspur Pansies Sweet Peas Stocks Transplant Carnation Columbine Calendula Candytuft Forget-me-not Pansies Stocks Bulbs Anemones Callas Easter Lilies Freesias Hyacinths Iris Narcissus Ranunculus Tulips Mignonette may be sown all the year around.	Sweet Peas Transplant Coreopsis Centaurea Cineraria Larkspur Pansies Stocks Bulbs Anemones Callas Cannas Easter Lilies Freesias Hyacinth Iris Narcissus Ranunculus Tulip Border Plants Alyssum Ageratum Begonias Coeus Geranium Shasta Daisy Verbena

GOLDEN
HYBRID

CASABAS

HONEY
DEW

FOUR PACKETS

ONE

EACH OF THESE

50¢

GOLDEN
BEAUTY

GOLDEN
HONEY